Realities from practice: What it means to midwives and student midwives to care for women with BMIs ≥30kg/m^2 during the childbirth continuum

A thesis submitted in accordance with the requirements of the University of Chester for the degree of Doctor of Philosophy by

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Declaration by Candidate

I hereby declare that this thesis is my own work and effort, and where other sources of information have been used they have been acknowledged. This thesis has not been submitted elsewhere for any award.

Signature: 

Date: 19th December 2016

Contents

List of Tables and Figures

Outline of the Thesis

The thesis comprises a total of seven chapters, for each of which, brief details are outlined below:

Chapter one introduces the research topic of maternal obesity, provides information on its background and contextualises it in terms of current midwifery practice.

Chapter two provides a literature review on published research related to the research question for this study; to identify a gap in knowledge and provide further evidence for the conduct of the research.

Chapter three presents the theoretical underpinnings to the study's methodological decisions, providing justification for the utilisation of Interpretative Phenomenological Analysis. Ethical considerations are also addressed and the concept of reflexivity is introduced.

Chapter four involves an account of the research design, settings, samples and the data collection and analysis methods utilised in the study. The application of rigour is also discussed.

Chapter five reports the findings for part 1 of the study: what it means to midwives to care for women with raised BMIs during the childbirth continuum. It discusses and synthesises these findings, contextualising them in relation to current knowledge and practice. The unique findings of the study are highlighted.

Chapter six reports the findings for part 2 of the study: what it means to student midwives to care for women with raised BMIs during the childbirth continuum. It discusses and synthesises parts 1 and 2 of the study's findings, contextualising them in relation to current knowledge and practice. The unique findings of part 2 of the study are highlighted.

Chapter seven presents the unique findings of the study, identifies its strengths and limitations and draws a conclusion to the thesis and presents recommendations for practice, education, and research.

Glossary of Terms

Abdominal palpation: a systematic examination of mother's abdomen from 24 weeks gestation to assess fetal growth and from 36 weeks gestation fetal presentation cephalic (head) or breech (bottom).

Anomaly scan: 18-20 week detailed pregnancy scan to check for physical abnormalities in the fetus.

Antenatal care: care provided by midwives during pregnancy to ensure that fetal and maternal health are optimised. The midwife also evaluates the psychological and sociological effects of pregnancy on the woman and her family.

Bioelectric Impedance Analysis weight scales: these determine the electrical impedance to the flow of electric current through the body to calculate body fat percentage; muscle has high water content so is highly conductive, whereas fat has a lower water content.

Booking appointment: an appointment with a midwife where a woman enters the maternity care pathway for the first time in her pregnancy. It is characterised by information giving and detailed history taking, assessments of physical health that include blood pressure measurements and blood tests.

Cardiotocograph (CTG): a machine that measures the fetal heart rate and uterine contractions and is able to provide a paper printout of the information it records. It is also commonly known as an electronic fetal monitor (EFM).

Clexane: anticoagulant drug used to prevent and treat deep vein thrombosis.

DXA scan: dual energy X-ray absorptiometry scan. Used to measure bone density, but can be used to distinguish between bone, fat and muscle mass.

Glucose Tolerance Test (GTT): a blood test performed to detect diabetes. A standard dose of glucose is ingested by mouth and blood levels are checked two hours later.

Fetal Blood Sampling (FBS): a sample of blood taken from the fetal scalp during labour to detect fetal hypoxia.

Fetal Heart Rate (FHR): fetal heart rate is between 110 to 160 beats per minute.

Fetal Scalp Electrode (FSE): small transducer applied to the fetal scalp via the vagina during labour to monitor the fetal heart rate.

Flowtrons: a garment designed to reduce the incidence of deep vein thrombosis. The calf/thigh garment is controlled to inflate intermittently to stimulate the flow of blood through the deep veins of the leg.

Intrapartum care: care provided by the midwife during labour. Labour encompasses three stages. First stage is the onset of regular uterine contractions, effacement (taking up) of the cervix and dilatation of the cervix from 4cms to 10cms. Second stage involves the birth of the baby. Third stage is from the birth of the baby to expulsion of the placenta and membranes and haemostasis (the control of bleeding). Labour care includes psychological support, and the monitoring of the progress of labour and the physical wellbeing of both mother and fetus/baby.

Lithotomy position: involves the woman lying on her back with her thighs and legs flexed and abducted, feet above or at the same level as the hips, and legs held in place/supported with leg supports.

Macrosomia: term used to describe larger than average babies born at any gestation with a birth weight more than 4kgs (8lbs 13oz).

Nuchal scan: a sonographic prenatal screening scan performed between 11 to 13 weeks to assess the quantity of fluid collecting at the nape of the neck of the fetus, to identify chances of chromosomal conditions including Down Syndrome.

Postnatal care: care provided by the midwife after the end of labour during which attendance of a midwife upon the woman and baby is required, being no less than 10 days and for such longer period as the midwife considers necessary. Its aim is to assist the mother, baby and family towards attaining an optimum health status.

Postpartum haemorrhage (PPH): excessive bleeding above 500mls from the genital tract from the birth of the baby and up to 6 weeks.

Postpartum period: immediately after the birth of a baby and extending to 6 weeks.

Prolonged labour: a labour lasting more than 24 hours.

Prolonged pregnancy: pregnancy lasting 42 weeks (294 days) or more from the first day of the last menstrual period.

TEDS (Thromboembolic stockings): graduated compression stockings used to reduce risk of deep vein thrombosis.

Myometrium: muscle of the uterus.

Shoulder dystocia: a complication following the delivery of the fetal head, where the fetal shoulders fail to rotate, descend and deliver.

Student midwife: student upon a 3 year BSc (Hons) Midwifery programme of study to achieve registration to the Nursing and Midwifery Council (NMC) as a qualified midwifery practitioner.

Vaginal examination: is performed with informed consent to gain a detailed account of labour and its subsequent progress. To assist with the findings an abdominal examination is performed beforehand.

(Sources: Marshall, & Raynor, 2014; Ross, Isaacs, & Beall, 2014; Tiran, 2012; Medical Dictionary, 2009; Snijder, Van Dam, Visser & Seidell, 2006).

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Realities from practice: What it means to midwives and student midwives to care for women with BMIs ≥30kg/m^2 during the childbirth continuum

Taniya Roberts

Abstract

Women with raised BMIs ≥30kg/m^2 have now become the 'norm' in maternity practice due to the recent obesity epidemic. To date only very limited research evidence exists highlighting midwives' experiences of caring for this group of women. This thesis aims to provide original research on what it means to midwives and student midwives on the point of qualification to care for this client group throughout the childbirth continuum.

The theoretical basis for the study was Interpretative Phenomenological Analysis (IPA) developed by Smith (Smith, Flowers, and Larkin, 2009), and as yet a relatively new research methodology to midwifery research. Sixteen midwives were recruited from four Hospital Trusts in the North of England and eight student midwives from a University in the North of England, who had experiences of five Hospital Trust settings. Purposive sampling was utilised. Data collection was conducted via one-to-one low-structured interviews and data analysis was performed following the principles of IPA.

Rich data emerged from the interviews. The midwives' findings encapsulated five super-ordinate themes: Negative Impact, Catch 22, Size Matters, That Sinking Feeling, and Caring Against All Odds. The student midwives also determined five super-ordinate themes: Prepared to Care, Size Matters, Communication Truths, Normalising the Risk and Mind the Gap. These findings demonstrate the similarities and differences between the two groups of participants as to what it means to care for this client group, and place them within midwifery practice and educational contexts. The students on the whole feel prepared to care for the women but the midwives do not. Despite most of the super-ordinate themes displaying negative connotations, there were positive aspects to caring for this defined group of women, with concern, compassion and non-judgemental care being exhibited by both groups of participants. Original findings were derived from both the midwives and student midwives on what it means to care for this high risk group of women during antenatal, intrapartum and postnatal care.

The thesis concludes with recommendations for midwifery practice, enhanced communication schemes, education (use of simulation), and visual perception training on obesity for pre-registration midwifery programmes. It also recommends a post-registration module of study on the management of obesity during the childbirth continuum for midwifery practitioners, and workshops to provide educational training in communication strategies. Ultimately the public, and specifically the maternity population, should be made aware by a public health campaign of the additional risks of becoming pregnant with a raised BMI ≥30kg/m^2.

Chapter 1: Introduction and Background

1.1 Introduction

Chapter 1 details the background to the study and more specifically the position that midwives and student midwives found themselves in when caring for women with raised Body Mass Indexes (BMIs) ≥30kg/m^2 during antenatal, labour and postnatal care delivery at the commencement of this study in November 2010. This chapter also provides a context to the issues of maternal obesity and a coherent rationale for the conduct of this study: 'what it means to midwives and student midwives to care for women with a BMI ≥30kg/m^2 during the childbirth continuum'.

In 2009 according to the NHS Information Centre, (2009) obesity had reached high levels in England. This was of increasing concern to public health specialists and an obesity epidemic was thought likely to have a serious impact on the future delivery of maternity services (Richens, 2008).

The Confidential Enquiry into Maternal and Child Health (Lewis, 2007) brought the serious issue of maternal obesity to the public's attention. It published the findings that 28% of all the women who died during the childbirth continuum and who had their BMI recorded, had BMIs ≥30kg/m^2. It also found that 30% of mothers who had a stillbirth or neonatal death were obese. It was not until 2010, however, that guidance was published on how to manage maternity care for women with a BMI ≥30kg/m^2 who are booking their pregnancies with the maternity services (CMACE/RCOG, 2010; NICE, 2010). Women who are obese and pregnant are at a greater risk of a range of health problems (to them and their fetus/baby) than pregnant women with normal range BMI measurements, and with obesity in pregnancy expected to rise (Heslehurst, Ells, Simpson, Batterman, Wilkinson, & Summerbell, 2007a), the problems were becoming childbirth specific (Rajasingham & Rickhard, 2010). Pregnant women commencing maternity care with a BMI ≥30kg/m^2 were being informed of possible risk factors, communicated to them in the main by midwives, yet being told not to diet as this might harm the baby and given no guidance on how much weight that they should gain in pregnancy (NICE, 2010). This was the difficult position that midwives and student midwives were facing and one which this study hoped to examine and explore.

1.2 Definition of Obesity

Obesity is defined by the condition of excessive fat stored in the body, which may impair health, and is caused when people consume more energy than they expend (World Health Organisation (WHO), 2009). The Body Mass Index (BMI) is the most

common method of measuring obesity in adults in the United Kingdom (UK) (NICE, 2006). BMI is defined as a person's weight in kilograms divided by the square of their height in metres (kg/m^2) and it is the same for both sexes, is independent of age, and is calculated from the above formula and expressed as a number (see Table 1.1 for a definition of obesity in numerical form).

Adolphe Quetelet (1796–1874), a Belgian mathematician, astronomer and statistician, developed the Quetelet Index in 1832. This mathematical equation of weight divided by height was derived in response to actuaries reporting increased mortality of their policy holders who were overweight (Eknoyan, 2008). It formed the basis for the Body Mass Index which was created in 1972 and was deemed to be applicable to all populations (Keys, Fidanza, Karvoven, Kimura & Taylor, 1972). There is an awareness, however, that this may not be appropriate for all ethnic groups (WHO, 2004). Also of note is that the original BMI work to determine relative weight and adiposity was conducted on males only (n = 7,424) (Keys *et al*., 1972). Additional cut-off points were added to the international classification of BMI in 2004 due to the debate that different ethnic groups, particularly different Asian populations, may require different measurements (WHO, 2004) as different ethnic groups are associated with having different physiological responses to adipose storage (Gatineau & Mathrani, 2011). This followed a WHO Expert Consultation on BMI in Asian populations conducted in 2002 which concluded that the proportion of Asian people with a high risk of type 2 diabetes and cardiovascular disease is substantial at BMIs lower than the existing WHO cut-off point for overweight (= 25 kg/m^2) (WHO, 2004). However, there were variations in differing Asian populations' risk status, and the Consultation therefore recommended that the current WHO BMI cut-off points (Table 1.1) should be retained as the international classification (WHO, 2004).

The WHO currently recommend that all countries should utilise these additional cut-off points to facilitate action on public health and to allow an international comparison of obesity to be drawn (WHO, 2004; WHO, 2016). They also suggest that individual countries can make decisions about their definitions of obesity risk status for their specific populations utilising these cut-off measurements (WHO, 2016). This is of note because the BMI measurement has been recently criticised (BBC, 2014) for failing to determine obesity early enough in ethnic minority groups within the UK, for whom Kelly, Director of the Centre for Public Health at the National Institute for Health and Care Excellence (NICE) (NICE, 2013a), suggests there should be a lower cut-off for the 'obese' category. That would mean a BMI score of $\geq 27.5 kg/m^2$ rather than $\geq 30 kg/m^2$ for people of African, Caribbean and

Asian descent. Revised cut-offs have been recommended for South Asian populations in the UK, who are at risk of chronic diseases and mortality at lower BMI thresholds and waist circumference measures than European populations (Public Health England [PHE], 2016). Gatineau and Mathrani (2011) contend that all ethnic minority groups classified as obese (BMI ≥30kg/m^2) within the UK are at a more elevated risk of type 2 diabetes than their European counterparts. There is therefore continuing debate about the legitimacy of using current definitions of obesity for non-white ethnic groups within the UK (PHE, 2016). With women appearing to have a higher prevalence of obesity in almost every minority ethnic group (PHE, 2016), changes to the BMI obesity threshold could therefore impact upon risk identification for women from ethnic minorities accessing the maternity services.

Table 1.1: World Health Organisation classification of adult normal, overweight and obesity according to Body Mass Index (BMI) (WHO, 2004)

Classification	**BMI (kg/$m^{2)}$**	
	Principal cut-off points	**Additional cut-off points**
Normal range	18.50 – 24.99	18.50 – 22.99 23.00 – 24.99
Overweight	≥25.00	≥25.00
• **Pre-obese**	25.00 – 29.99	25.00 – 27.49 27.50 – 29.99
Obese	≥30.00	≥30.00
• **Obese class I**	30.00 – 34.99	30.00 – 32.49 32.50 – 34.99
• **Obese class II**	35.00 – 39.99	35.00 – 37.49 37.50 – 39.99
• **Obese class III**	≥40.00	≥40.00

Two American researchers, Shah and Braverman (2012), compared BMI and body fat percentage measurements in 1,393 adults, and found that BMI seriously underestimates obesity prevalence, more so in women than men. A major recommendation from their findings was that there should be new cut-off points in the diagnosis of obesity using BMI measurements, for women ≥24kg/m^2 and for men ≥28kg/m^2. A limitation of their study was that comparisons were not made for the participants' ethnic origin. A further criticism of BMI is that it does not distinguish between lean (non-fat) mass and fat mass, an example being a bodybuilder who could be considered overweight or obese according to their BMI (Snijder, Van Dam, Visser, & Seidell, 2006).

Within the maternity services BMI is used to diagnose obesity (NICE, 2010). There are, however, alternative suggestions for measuring obesity within the

general population: they include assessing fat distribution by waist-to-height ratio measurements, or the waist circumference divided by hip circumference (WHO, 2011). A waist circumference of >88cms with a normal BMI establishes a risk factor in women for cardiovascular disease (NICE, 2006). Ashwell (2013) recommends waist-to-height ratio measurements, and advises that to reduce risks of ill-health a waist circumference should be less than half of an individual's height. Whilst this may be perceived as a diagnostic tool inappropriate in pregnancy due to measuring central fat distribution (Ashwell, 2013), it is interesting to note that waist circumference measurements increased from 23% in 1993 to 37% in 2007 (NHS Information Centre, 2009). Another means to determine obesity is body fat percentage, and methods used include skin fold callipers, bioelectric impedance weighing scales and DXA scans (Gallagher, Heymsfield, Moonseong, Jebb, Murgatroyd & Sakamoto, 2000; Snijder *et al*., 2006). It is suggested that to accurately diagnose obesity a DXA scan needs to be performed (Shah & Braverman, 2012). This, however, would not be appropriate for use in pregnancy due to it utilising low dose radiation. It would appear therefore that measuring women's BMI remains the only tool to diagnose obesity in pregnancy.

Pregnant women generally have their BMI measured at the 'booking interview', an appointment with a midwife where a woman enters the maternity care pathway for the first time in her pregnancy; this takes place between eight and 12 weeks as recommended by the NICE antenatal care guidelines (NICE, 2008). However, research by Chereshneva, Hinkson and Oteng-Ntim in 2008 suggests that not all antenatal clinics were adhering to weighing women at this time. Oteng-Ntim, Khazaezadeh, Mohiddin, Bewley and Bimpe (2008) discovered in Lambeth (London) that 36% of obese pregnant women were not having their BMI recorded accurately due to discrepancies in self-reporting, and a further study in Dublin discovered that 60% of women underestimated their BMI (Fattah, Farah, O'Toole, Barry, Stuart, & Turner *et al.,* 2009). This suggests that as a matter of routine midwives should calculate women's BMI, to ensure that risk factors are assessed appropriately.

Dornhorst (2008), President of the Endocrinology and Diabetes Section of the Royal Society of Medicine, commented in a press release in 2008 relating to the study by Chereshneva *et al*. (2008) that she was staggered that women booking for obstetric services were still not having their BMI routinely recorded. In response to this the NICE public health guidance *Dietary interventions and physical activity interventions for weight management before, during and after pregnancy* (NICE, 2010) stipulated that all women at booking should have their BMIs recorded.

1.3 Pathophysiology of Obesity

The pathophysiology of obesity is considered a complex area (Lau, 2008). Essentially it is believed that the fundamental cause of obesity is the energy–expenditure equation, eating more calories than are required and therefore expended, resulting in an increase of adipose tissue (McLannahan, 2008). Blundell (2013) contends that the energy–expenditure equation is wrong because there is an energy gap between people with normal range BMIs and those who are obese; he suggests that sedentariness and not necessarily overeating can allow obesity to develop, but acknowledges that an energy dense diet contributes to the problem (Blundell, 2013). This is supported by James (2013) who argues that eating a calorie dense diet and increasing energy expenditure will not contribute to weight loss. Dyer and Rosenfeld (2011) also contend that the obesity epidemic cannot be explained by societal influences and people eating more; they postulate that a cause could be metabolic imprinting, essentially suggesting that if over-nutrition occurred during fetal development, then this would have an impact on later life and provide an aetiology for obesity.

A physical representation of obesity is an increase of adipose tissue, which comprises approximately 80% adipocytes, cells that store fat. Adipocytes are large clear cells that have the propensity to increase in volume at least tenfold as adults become obese (McLannahan & Clifton, 2008). Adipose tissue is an active endocrine organ which produces leptin. Increased adipose tissue (obesity), however, is believed to cause leptin resistance and this affects appetite (Blundell, 2013), essentially because leptin deficiency makes the brain think it is being starved (Goldstone, 2013). As leptin is believed to play a key role in decreasing appetite (Appleton & Vanbergen, 2013), being leptin resistant will increase appetite and thus further complicate the levels of obesity in individuals. It has been suggested that ghrelin, a stomach (gut) hormone, is also implicated in this complex situation as it has the effect of increasing appetite (Goldstone, 2013). However, Lau (2008) contends that when and how much an individual decides to eat is influenced not just by circulating leptin and insulin levels, but also on the quantities of ghrelin and peptide YY (another gut hormone signalling hunger and satiety) present within the circulation, and by the complex transmission of these hormones via neurotransmitters to the hypothalamus and the brain.

Within maternity care there is growing awareness of the complexity of the pathophysiology of maternal obesity and specifically about the neuroendocrine role of adipose tissue (Bogaerts, Witters, Van den Bergh, Jans & Devlieger, 2013). Leptin levels in pregnancy are believed to rise, and more significantly in the higher

BMI categories; this causes leptin resistance which is postulated to inhibit uterine contractibility and thus affect the onset of labour, though the exact mechanism is not understood (Moynihan, Hehir, Galavey, Smith & Morrison, 2006). Other research (Quenby, 2009) suggested that maternal obesity affected the transmission of calcium ions within the myometrium and this impacted on uterine contractions, but this was not proven; another study by Zhang, Bicker, Wray and Quenby (2007) found that high cholesterol levels in obese pregnant women caused the myometrium to contract at a lower frequency and with less force than in women with normal range BMIs. Conversely, it has been contended that the influences of cholesterol and high fat diets on myometrial activity may be too simplistic an explanation for prolonged pregnancy in obese women (Higgins, Martin, Anderson, Blanks, Norman, McConnachie, & Nelson, 2010), whilst a systematic review conducted by Bogaerts *et al.* (2013) found that the effects of maternal obesity on childbirth were increased duration of pregnancy and prolonged first stage of labour. The above observations suggest that the exact pathophysiology of maternal obesity on these processes is still being sought.

1.4 Epidemiology

The statistics on the rising levels of obesity in the population are startling. The WHO (2004) announced that in 2000 more than 1 billion adults worldwide were overweight and 300 million of these obese; this was three times higher than figures in the 1980s, the report citing obesity as a global epidemic.

In the UK over the last 25 years there has been a 400% increase in obesity (House of Commons Health Committee, 2004). The figures produced for 2007 revealed that 24% of adults (aged 16 and over) were classified as obese, having increased from 15% in 1993 (NHS Information Centre, 2009). It was predicted in a report by Foresight in 2007 that by 2025 almost half of men and over a third of women (age range 21 to 60 years) would be obese, and by 2050 at least 60% of men and 50% of women (Foresight, 2007). It also predicted that by 2050 the cost to the National Health Service (NHS) of treating the consequences of obesity would rise by an extra £45.5 billion per year (Foresight, 2007). Moreover, a report published by the National Obesity Forum in 2014, the *State of the Nation's Waistline*, suggests that the figures predicted by the *Foresight Report* may have been an under-estimation of the problem. (Recent figures are discussed in chapter 8.)

There were no figures on the obese maternity population in England until Heslehurst, Lang, Rankin, Wilkinson, and Summerbell's (2010) study, which looked

at the trends of maternal obesity from 1989 to 2007, and the Centre for Maternal and Child Enquiries (CMACE, 2010) project findings which were published in December 2010 (see table 1.2 for CMACE findings).

Table 1.2: Findings from CMACE (2010) study of women with a BMI ≥35kg/m2

BMI ≥35	4.99% = 38, 478 maternities
BMI ≥40	2.01%
BMI ≥50	0.19%
Highest prevalence of women with BMI ≥35	Wales 6.5% = 1:15 maternities
Black and minority ethnic groups represent 20% of general maternity population	14% of cohort

Of note, Heslehurst *et al.* (2010) did collect data from maternity units on women with BMIs ≥30kg/m^2, whereas CMACE (2010) only derived data regarding the obesity subgroup of women with BMIs ≥35kg/m^2. Previous research in Middlesbrough and Liverpool indicated the figures for obesity (BMIs ≥30kg/m^2) in these areas to be 16 to 17.7% (Heslehurst *et al*. 2007a; Kerrigan & Kingdon, 2010).

Heslehurst *et al*. (2010) were the first to describe the incidence and demographic inequalities of maternal obesity in England. They analysed information gathered from 34 maternity units and 619 323 births from 1989 until 2007. They discovered that maternal obesity has doubled over the course of the study period, from 8% to 16%, but suggested that there could be regional variations and gave an example of the East Midlands achieving 21.6%. They cautioned that the true figures could be even higher as the selection of participants included only completed pregnancies to marry up with calculated gestational age at booking. Increasing age and parity were also found to be factors influencing the level of obesity in the maternity population.

Other information Heslehurst *et al*. (2010) gathered from their study was on social and ethnic classifications of maternal obesity. They discovered that increased levels of obesity were linked to social deprivation and thus the super morbidly obese (BMI ≥50kg/m^2) represented this category; however women who were overweight and obese were likely to be in employment (though the type of employment was not ascertained). There was no correlation between levels of obesity in the Asian general and maternity populations as there was a reduced prevalence of obesity in all obesity subgroup classifications found in maternity care (increased level of obesity in Asian women in the general population). Whereas the levels of obesity in women who were black/black British mirrored both populations. CMACE (2010) collected statistics from a UK wide study on levels of obesity, but omitted the obesity subgroup ≥30 to 34kg/m^2. The figures for maternal obesity previously discussed

were the only ones available for the maternity population in England at the commencement of this study.

1.5 Causes of Obesity

Mills (2009) suggests that an increase in obesity is due to an 'obesogenic environment' where calorie dense foods are readily available and because as a society we have reduced the amount we exercise. Weight is gained by calorie intake exceeding expenditure (Venter, 2009). The mechanisms for regulating adiposity and weight control are not fully understood, as genetic causes are rare (Mills, 2010), though parental influence does play a part as the offspring of two obese parents has an approximately 70% risk of becoming obese (Association for the Study of Obesity (ASO), 2008).

Other suggestions for contributing factors to the obesity epidemic are diets high in sugar (Dehghan, Akhtar-Danesh, & Merchant, 2005) and wheat (Davis, 2014). Davis, an American cardiologist (2014, p.34), believes that because wheat has been genetically modified and is so much part of our everyday diet, it has contributed to the obesity epidemic because of its glycaemic index (GI). In his book *Wheat Belly,* he cites the fact that whole wheat bread has a higher GI than table sugar. Davis quotes the following GIs to demonstrate that whole-grain bread can elevate a person's blood sugar higher than table sugar: whole-grain bread's GI is 72, table sugar is 59, a Mars bar is 68 and a Snickers bar is 41, and thus wheat can contribute to weight gain because people are unaware of the implications of eating a wheat dense diet. It has also been argued that sugary soft drinks containing fructose are particularly pernicious in increasing obesity (Rayner, 2013). James (President of the International Association for the Study of Obesity) (2013) believes that our diets are now composed of energy dense foods with high levels of fat and sugar (a situation which arose from transportation costs of foods across America), and that this is the underlying cause of the obesity epidemic. He also hypothesises that there is a link between dopamine and responses in the brain to fat and sugar, and suggests links with possible food addiction (research is ongoing at Yale University).

Whatever the reasons for the obesity epidemic, women do gain weight for a variety of reasons, whether out of comfort eating, a change of lifestyle, inability to exercise due to illness/injuries, pregnancy, enjoyment of food, or ignorance of what is considered a healthy diet; or they may have developed an eating disorder, such as compulsive overeating (Steen, 2009), or have reached adulthood suffering from childhood obesity (Sahota, 2011). Pregnancy itself can pose a risk of obesity in that pregnant women who are considered overweight and gain over 11.3kgs (25lbs) in

pregnancy are at risk of becoming obese in the postnatal period (Langford, Joshu, Chang, Myles, & Leet, 2011).

It has also been debated that an increasing BMI is associated with increasing age and parity (Abayomi, Watkinson, Topping, & Hackett, 2007). The prevalence of obesity, however, increases with age in both men and women, and ethnicity also appears to play a part as black Caribbean, black African and Pakistani women's incidence of obesity is higher than in the general population (NHS Information Centre, 2009). Also of note, as previously mentioned, is that South Asians have a different distribution of body fat to Caucasians and should therefore be considered obese with a BMI ≥27kg/m^2 (WHO, 2004). Socio-economic deprivation in women and not men also increases the rates of obesity in women (NHS Information Centre, 2009). The reasons, therefore, for gaining weight can be a complex mix of emotional, physical and psychological issues. Whatever the reasons for gaining weight are, it can be relatively easy to achieve. A daily excess of a 100kcals per day can potentially result in a 5kg weight gain in a year, basically two extra digestive biscuits a day (Mills, 2009).

Healthcare professionals may be partly responsible for weight gain in pregnancy as that old adage of 'eating for two' was coined in the 1970s, whereby pregnant women were advised to put on at least 11.3kgs (25lbs) in pregnancy to reduce the risk of having a premature birth or low birthweight baby (Feig & Naylor, 1998). 'Eating for two' and putting on a minimum of 11kgs appears to still exist in society and until recently there was no apparent guidance, based on a woman's BMI, on what should be appropriate weight gain in pregnancy not until the Institute of Medicine (IOM) in the USA published guidelines in May 2009 (IOM, 2009). These will be discussed later.

1.6 Childhood Obesity

Childhood obesity is now a public health issue in the UK with the inherent risk of future generations of obese children developing coronary heart disease and type II diabetes as they grow older (Greenway, 2008). Childhood obesity was noticed in the 1980s and rapidly escalated over the next ten years, though in 2011 it appeared to have plateaued (Sahota, 2011). However, recent figures on childhood obesity revealing that 31% of boys and 28% of girls aged between 2 and 15 years could be classified as overweight or obese (Health & Social Care Information Centre, 2013) suggest otherwise. The prevalence of being overweight or obese among children in England aged 2 to 4 years increased from 22.7% in 1994 to 27.7% in 2004 (Jotangia, Moody, & Stamatakis, 2006). Past statistics from the Health Survey of

England (HSE, 2010) stated that in 2009 the obesity rates for children aged from 2 to 15 years was 16% in boys and 15% in girls, an increase from 1995 of 6% in boys and 3% in girls. There is therefore not a clear picture on present rates of childhood obesity because of the presentation of the statistics, as one survey measured obesity and the other overweight and obesity levels. Whatever the exact figures are, it is apparent that childhood obesity is not declining and Pinot de Moira, Power and Leah (2010) believe that the causes for this increase are not genetic (because of the short time frame), but due to lifestyle and environmental factors, particularly parental obesity, maternal employment and socio-economic status with the increase being more prevalent in offspring from manual classes and deprived areas. They also found a connection between smaller family size and no younger siblings to indicate a link with children's raised BMIs.

The use of BMI measurements in children is, however, viewed as controversial because a child's weight, height and amount of fat are not consistent throughout childhood (McLannahan & Clifton, 2008), although Sahota (2011) recommends that whilst they are more complex to use in children, they must be age and gender specific, with multiple and single cut-off points as in the calculation of adult BMIs. Whincup (2013) argues that ethnicity should be considered as he believes that adiposity is being under-estimated in Asian children and overestimated in black Caribbean children.

BMIs for children can be interpreted by using charts developed by either the Scottish Intercollegiate Guidelines Network (SIGN, 2011), which demarcates using BMIs above the 98th percentile for sex and age, or an obesity measurement defined by the International Obesity Taskforce (IOTF, 2004). Griffiths, Gately, Marchant and Cooke (2012) believe that whilst there has been a stabilisation of children's BMI measurements, children are still becoming larger by the distribution of central adipose tissue, which has been calculated by their waist measurements and which carries with it a number of risk factors.

According to the International Obesity Task Force (IOTF, 2004), obesity causes are societal, not individual weaknesses; the societal influences are primarily poor parental nutritional knowledge and over feeding of infants, resulting in rapid weight gain and childhood obesity (Adab, 2013), and an obesogenic environment (Sahota, 2011). A systematic review conducted by Parsons, Power, Logan and Summerbell (1999) found one of the predictors for childhood obesity was both parents being obese; this risk equates to 70% (ASO, 2008).

Another cause reported is maternal obesity and excessive weight gain in pregnancy, and this is resulting in an increase in obesity in children aged 2 to 4

years (Oken, Taveras, Kleinman, Rich-Edwards, & Gilman, 2005). Barclay (2011) contends that if solid foods are introduced before 4 months this can also lead to childhood obesity, by increasing body fat and weight in children. The reasons for this growth in the rate of childhood obesity are complex and multiple, yet childhood obesity did not have a national strategy to tackle this problem until 2008 (DH, 2008).

The health consequences of childhood obesity in the short term are the psychological impacts it can have on children, ranging from low self-confidence, low self-esteem and self-image, and ultimately depression in some obese children (Priyank, Yagnik, McCormick, Arnold, Schecter, & Harris, 2014). Both types of diabetes (types I and II) and cardiovascular disease have been found to be emerging in adolescence (Greenway, 2008). There is an increased risk of asthma developing and of exacerbation of the existing condition; and, whilst not so common, there are associations with development of sleep apnoea, various joint problems and fatty liver condition. The longer term problems are an increased risk of ill health, independent of adult weight, if you were obese as a child (Wijga, Scholtens, Bemelmans, de Jongste, Kerkhof, & Schipper, 2010). These problems appear to be exacerbated if childhood obesity has prevailed into adolescence with the attendant risk factors of social isolation, lower educational attainment and low income (Sahota, 2011). Also cause for concern is that it is believed that if a child is obese at age 7 years, this then has an effect on their adult risk of developing cardiovascular disease, and this can be despite them being of normal weight in adulthood (Adab, 2013).

Clifton and Whatson (2008) believe the way ahead for tackling childhood obesity is to utilise a multidisciplinary team approach to help children to permanently change their eating behaviour, by using a variety of psychological techniques and involving family members. Taylor and Whatson (2008), however, suggest that family eating behaviour and how this influences childhood obesity should be geared to two specific time points, that is weaning and pre-school age, as it has been suggested that once children reach school age they have already been affected by poor eating habits and can be on the route to being obese and overweight. The mounting concern is emphasised by the findings that more than 70% of obese children and more than 85% of obese adolescents will become obese adults (Sahota, 2011). A cross-government strategy *Healthy weight, healthy lives* (Cross-Government Obesity Unit, 2008), whereby parents and parental behaviour were targeted by this public health initiative, suggests that parents have the greatest influence on their children becoming obese.

1.7 Risks of Maternal Obesity

The potential risks to a woman, and to her fetus/baby, who at booking has a BMI of ≥30kg/m^2 are numerous (see table 1.3). In December 2010, CMACE (2010) published the findings from their three year UK-wide Obesity in Pregnancy Project. This project involved: a national survey of maternity services for women with obesity; a national cohort study of 5068 women with maternal obesity (BMI ≥35kg/ m^2) who gave birth in the UK during March and April 2009; a national clinical audit of maternity care received by 905 women with a BMI ≥35kg/m^2; and the development of national standards based on evidence and formal consensus methods, which were published in collaboration with the Royal College of Obstetricians in March 2010 (CMACE/RCOG, 2010). The study's focus was the prevalence of obesity, appropriateness of care and whether standards of care were being met. Table 1.4 shows the risks to mother and baby found in the CMACE study (2010) for women with a BMI ≥35kg/m^2, which are quite shocking. Not demonstrated in the table, but requiring mention, is the increase in induction rates, and the fact that the risk of postpartum haemorrhage was found to be at 38% – four times higher than the general maternity population (CMACE, 2010).

Table 1.3: The potential risks to a woman who has a BMI ≥30kg/m^2 and her baby

Mother	Baby
• Hypertension • Pre-eclampsia • Thromboembolism • Cardiac disease • Gestational diabetes • Pre-term labour • Induced or prolonged labour • Instrumental delivery • Emergency caesarean section • Postpartum haemorrhage	• Macrosomia • Prematurity • Congenital anomalies • Hypoglycaemia • Stillbirth • Intrauterine death (Watkins, Rasmussen, Honein, Botto, & Moore, 2003; Richens, 2008; Mahmood, 2009; Modder, 2009; CMACE, 2010; NICE, 2010).

Table 1.4: Risks associated with BMI ≥35kg/m^2 (CMACE, 2010)

	BMI ≥35kg/m^2	**General maternity population**
Increased risk of caesarean section	37%	25%
Reduced spontaneous vaginal deliveries	55%	69%
Stillbirths	8.6 per 1000 singleton births	3.9 per 1000 singleton births
Intrapartum stillbirths	11.9%	8.4%
Large for gestational age	20%	10%

Midwives are being asked to discuss the risks associated with a woman booking her pregnancy with a BMI ≥30kg/m^2 in a sensitive way that empowers the woman to engage with the maternity services (CMACE, 2010); however, they must advise the woman that she must not diet as this may harm the baby (NICE, 2010), because of the increased risk of ketosis and restricted nutrition (Chereshneva *et al*. 2008). There is no guidance on how much weight she should gain in the pregnancy, though a literature review by Guelinckx, Devlieger, Beckers and Vansant (2008) suggests that adverse outcomes are exacerbated by obese women gaining excessive weight during their pregnancies.

There are also increased risks in maternal morbidity to the group of women who embark on a pregnancy with a normal weight, but who gain excessive weight in pregnancy. These risks are gestational diabetes, caesarean sections and postpartum infections (Kabiru & Raynor, 2004). Women who are considered overweight with BMIs 26-29kg/m^2 and who gain 11.3kgs (25lbs) were found to be more at risk of pre-eclampsia, caesarean sections and macrosomia according to Langford, Joshu, Chang, Myles, and Leet (2011). Catalano and Ehrenberg (2006) argue, however, that pre-pregnancy obesity is where most risks and complications lie.

Other risks involved in becoming pregnant whilst obese are that, according to a study by Soltani and Fraser (2002), this group of women have a significant tendency to central fat retention following pregnancy, a key risk factor for becoming glucose intolerant and diabetic. Ultimately, the worst maternal outcome is that obesity is a significant risk factor for maternal death (Lewis, 2007); however, when discussing risk factors in obese pregnant women there is no recommendation of this risk identified by NICE (2010). Chereshneva *et al*. (2008) suggested that in 2008 some healthcare professionals did not recognise obesity as a risk factor for obstetric complications during pregnancy. Since the publication of the NICE (2010) guidelines, health professionals who are involved and responsible for this client group are now aware that being obese whilst pregnant is associated with considerable risks of adverse outcomes for both mother and baby.

1.8 Policy and Clinical Guidance

Prior to 2010, there were no Government driven UK maternity guidelines for the management of this client group. The Government's anti-obesity campaigns were not targeted specifically at women of childbearing age (Oteng-Ntim, 2009), despite it being suggested that this was a public health concern and should be addressed

before a woman becomes pregnant (Lewis, 2007). Approximately 45% of pregnancies are not planned (Wellings *et al*. 2013), and it has to be realised and accepted in maternity care that this high risk group will only increase according to all known statistics.

Until 2010, guidance for the management of obesity and pregnancy was derived from general maternity care guidance. *Antenatal Care* (NICE, 2008) stated that pregnant women with a BMI ≥30kg/m^2 were outside their remit; however, they did recommend that they required additional care. *Antenatal Care* (NICE, 2008) did, however, recommend that every woman should be weighed and have their height measured at their booking appointment, and BMI calculated though routine weighing during pregnancy was not advocated. Research by Chereshneva *et al*. (2008), however, suggested that not all antenatal clinics were adhering to weighing women at that time. It is therefore clear that even though there was some level of guidance, it was not always adhered to.

In the United States, the Institute of Medicine (2009) published guidance on recommendations on maternal weight gain in pregnancy (See Table 1.5). However, NICE (2010) did not advocate following the IOM recommendations: as these were derived from an American observational study, they did not fit the remit of evidence to support NICE guidelines and required further investigation.

Table 1.5: Recommendations for total and rate of weight gain during pregnancy, pre-pregnancy BMI (kgs conversion Jevitt, 2009)

Pre-pregnancy BMI	**BMI (kg/m^2)**	**Total weight gain (lbs)**	**Total weight gain (kgs)**	**Rates of weight gain, 2nd and 3rd trimester (lbs per week)**
Underweight	< 18.5	28 – 40	12.5 – 18.0	1
Normal weight	18.5 – 24.9	25 – 35	11.4 – 15.9	1
Overweight	25.0 – 29.9	15 – 25	6.8 – 11.4	0.6
Obese	≥30.0	11 – 20	5.0 – 9.0	0.5

The first UK *Obesity in Childbirth Conference* took place in 2009; the author attended and the debates helped to confirm her interest in this topic area. At the time everyone she spoke to at the conference was waiting for NICE guidance to be published, as it was felt that there was a paucity of information on how to manage this client group. The author met and spoke to the Assistant Director of NICE, who stated that there was a dearth of evidence-based information to support the guidance and that they were aware that the guidance was being eagerly awaited,

but that they were waiting for further research studies (Personal communication, 2009).

As previously mentioned the publication of the guidance *Dietary interventions and physical activity interventions for weight management before, during and after pregnancy* (NICE, July, 2010) was eagerly awaited. This guidance aimed to help women 'achieve and maintain a healthy weight before, during and after pregnancy by eating healthily, being physically active and by gradually losing weight after pregnancy' (NICE, 2010, p.6). Whilst it was hugely anticipated, in the author's opinion it was ultimately disappointing with regard to the management of women during pregnancy because the IOM's (2009) guidance on weight gain in pregnancy was not adopted.

This guidance does specifically highlight the risks to mother and baby of reaching pregnancy with a BMI ≥30kg/m^2 and advises that women should not diet in pregnancy. Yet, advising on a healthy diet and physical activity has been part of a midwife's role in antenatal care for many years (Baston & Hall, 2009), however what has dramatically changed the landscape has been the emergence of this obesity epidemic.

A component of the midwife's role in providing antenatal care is to advise pregnant women about their calorie intake whilst pregnant: that a dietary intake in pregnancy should ideally not exceed 2200kcals, effectively only 200kcals extra a day and that should only be in the last trimester (3 months) of the pregnancy. For the first six months of the pregnancy, therefore, women's intake should not exceed 2000 kcals per day (NICE, 2010). Worryingly, some women have said that when they are advised to eat a healthy diet, they do not know what that entails (Heslehurst, 2011a). Dietetic assistance could help improve women's diets and minimise their weight gain, ultimately reducing the risks to both women and their babies and reducing the cost to the NHS (Abayomi *et al*., 2007). As recommended by NICE (2010), this group of women should be offered a referral for specialist advice on healthy eating and physical activity. Unfortunately, resources for referrals to access dietitians are limited (Venter, 2009) and more so to dietitians who specialise in maternity care: Carina Venter, a dietitian who advised at the *Obesity in Childbirth Conference* (2009), stated that she knew of no dietitian who was specialising in this area at that time. This is also supported by the fact that only 4% of pregnant women with a BMI ≥35kg/m^2 were found to have been referred to a dietitian or nutritionist in CMACE's (2010) study.

NICE (2010) are advocating a referral for specialist advice on diet and exercise, yet do not suggest who is to provide this specialist advice when there is a paucity of

dietitians specialising in maternal health. At the completion of this thesis, to the researcher's knowledge from communication with matrons from the five Hospital Trust sites, no specialist dietitian in maternity care has been employed in any of the sample settings (Personal communication, 2015). Midwives appear to be the health professionals who are faced with this challenge. Heslehurst, Moore, Rankin, Ells, Wilkinson and Summerbell (2011b) also believe that obesity training is urgently required and state that the example of the specialist smoking cessation midwife should be followed; this had national and strategic support, and has successfully reduced the amount women smoke whilst pregnant. A potentially cost-effective option would therefore be to create a specialist midwife role in obesity management, and a facet of this role could be to educate other midwives. Another option would be to set up a specialist clinic for women with a raised BMI to be referred to, such as the one established at University College Hospital, London (Richens, 2008). Yet CMACE/RCOG (2010) suggest that it is not feasible to set up specialist clinics for obese clients due to resource issues. They recommend that the management of pregnant obese women should be integrated into all antenatal clinics and that health professionals should be aware of the maternal and fetal risks, so that they can minimise these risks. However, in the settings from which participants were recruited for this study (discussed in chapter 4), five maternity departments based in Hospital Trusts in the North of England, no specialist clinics have been set up and no specific intervention programmes have been introduced for this client group.

1.9 Conclusion

The situation in maternity care at the commencement of this study was a realisation of a global obesity epidemic and an unexpected and rising pregnant obese population. Recent guidance had been published by NICE (2010) and CMACE/RCOG (2010) on the management of women with a BMI ≥30kg/m^2 being cared for in the maternity services, however midwives and student midwives had not been educated or received training on how to care for this client group at the start of this study.

This chapter has endeavoured to provide a contextual focus to the situation being faced by midwives and student midwives at the commencement of this study, in their care delivery to women with raised BMIs during the childbirth continuum. It also supports the rationale for conducting this study: to explore what it means to them to care for this client group throughout the spectrum of maternity care delivery.

Chapter 2: Literature Review

2.1 Introduction

This chapter details literature searches conducted in September 2010 prior to the commencement of the study, and in May 2013, when it was decided to add another sample to the study and add student midwives to the research question 'What does it mean to midwives and student midwives (on the point of qualification) to care for women with BMIs ≥30kg/m^2 during the childbirth continuum?' As no literature was found, a narrative review was performed to encompass other healthcare professionals and women's perspectives of obesity care, and this will be discussed below. As initially the sample group had only included midwives, the differing samples are referred to as part 1 for the midwives and part 2 for the student midwives for the presentation of information.

2.2 Initial Literature Search for Part 1

An extensive search of the literature was conducted and involved searching a wide range of search engines and databases both within the United Kingdom and internationally (table 2.1) prior to the commencement of the study.

Table 2.1: Databases and search terms: initial literature search

Search terms	Databases
• Midwives AND caring OR obese • Midwives AND experiences OR obesity • Maternal obesity AND midwives • Maternal obesity AND midwives OR care • BMI AND maternity care • BMI AND midwives OR care • Midwives AND caring OR high risk • Midwives AND caring OR BMIs • Nurses AND obesity OR care • Nurses AND obese patients OR BMIs	• Birth • CINAHL • Cochrane Database • Google Scholar • Intermid.co.uk • Internurse.com • International Journal of Obs & Gynae • Journal of Advanced Nursing • Midirs Database • Midwifery • Pubmed • Wiley Online Library Database

Searching internet databases enabled the researcher to make immediate decisions about whether there was a gap in knowledge on the subject and its allied research question for the intended research, as discussed by Fink (2010). However, choosing the appropriate search terms can enable this process to be more streamlined (Aveyard, 2014). Williamson and Whittaker (2014, p.34) suggest that researchers can initially find searching for literature a frustrating process because electronic search engines use 'Boolean operators'. Boolean operators enable relevant resources to be found by narrowing searches; the most commonly used are

'AND' and 'OR' (Williamson & Whittaker, 2014), and utilising 'AND' and 'OR' between the search terms allowed texts to be searched for all the search terms stated. Therefore, the terms listed in table 2.1 were carefully considered before being used to determine if studies had been conducted on the subject of the project proposal. Searches were also made looking at nurses' experiences of caring for obese women, but none were found.

To aid the search of the literature, certain other search parameters are also required (Parahoo, 2014) and searches were carried out to capture global data to ensure a broad search was performed. Search parameters were initially set during the most recent five year period, as this is considered the time limit for in-date research (Aveyard, 2014). However, no relevant research studies were found and the time line was extended to a ten year period 2000-2010. The search concluded that no studies had been performed regarding midwives' experiences of caring for women with BMIs ≥30kg/m^2 that matched the author's project proposal. To ascertain that this was correct the services of a University librarian were called upon, as recommended by Boswell and Jackson (2014), and the researcher's findings were confirmed.

In 2010 the lack of research in the area of midwives' experiences of caring for women who have a BMI ≥30kg/m^2 at the booking of their pregnancy indicated that this study could make an original and important contribution to midwifery knowledge. This proposed research study aimed to collect information from the perspective of the participants (Flood, 2010), identifying what it meant to the midwives to care for women with raised BMIs during the childbirth continuum, rather than that of the researcher.

2.3 Literature Search for Part 2

Upon completion of part 1 of the study i.e. to determine what it meant to midwives to care for women with raised BMIs during the childbirth continuum, it was decided that another recruitment sample of student midwives would add further data, another perspective on caring for this client group and further impetus to the study. Therefore, in May 2013 a further review of the literature was conducted (Kowalczyk & Truluck, 2013), with the research question 'What does it mean to student midwives (on the point of qualification) to care for women with raised BMIs during the childbirth continuum?' Utilising this project's research question as recommended by Williamson and Whittaker (2014) to guide the search strategy, the same databases and search parameters were used as for part 1 of the study, but the search terms were specific for student midwives and the timescale was different

(see table 2.2). It was initially set to capture in-date research papers (Aveyard, 2014), and was therefore restricted to between 2008 and 2013. However, to ensure a broader search of the literature this period was extended to cover a ten year timescale. The literature was therefore searched from 2003 to 2013.

Table 2.2: Databases and search terms: further literature search

Search terms	Databases
• Student midwives AND caring OR obese • Student midwives AND experiences OR obesity • Maternal obesity AND student midwives • Maternal obesity AND student midwives OR care • BMI AND student midwives OR care • Student midwives AND caring OR high risk • Student midwives AND caring OR BMIs	• Birth • CINAHL • Cochrane Database • Google Scholar • Intermid.co.uk • Internurse.com • International Journal of Obs & Gynae • Journal of Advanced Nursing • Midirs Database • Midwifery • Pubmed • Wiley Online Library Database

The search again found a lack of research in this area. The contribution of this sample group to the study at this conjuncture was therefore thought to be original (Blaxter, Hughes, & Tight, 2006), with the potential to provide a unique insight into what it means for student midwives (on the point of qualification) to care for women with raised BMIs during the childbirth continuum. Given, however, that there was a clear dearth of literature, to ascertain a wider perspective on obesity care a narrative review was conducted using expanded search terms and a different selection of databases (table 2.3).

2.4 Narrative Review

Traditionally, literature reviews were focused on objectively presenting current knowledge on a topic by critiquing previously published research with reference to the study's research question (Popay & Mallinson, 2013). In recent years the systematic review has gained impetus and standing, producing new knowledge from the collation and interrogation of quantitative data by statistically combining the results of a number of studies (Khan, Kunz, Kleijnen & Antes, 2011). However, this type of review is considered to be limited in scope, whereas a narrative review can encompass wider literature (Collins & Fauser, 2005). More recently narrative reviews have grown in popularity (Popay & Mallinson, 2013) and are being utilised as a research design in their own right (Green, Johnson & Adams, 2006). The research design is concentrated on gathering data from published research, and providing a new conclusion from the literature (Green *et al.,* 2006). Narrative reviews

can also provide supporting evidence to suggest that there is a gap in knowledge, grouping the findings from the literature thematically to present this information (Kumar, 2014); this is the intention behind its use within this study.

Table 2.3: Databases and search terms: for narrative review

Search terms	Databases
• Anaesthetists AND obesity OR care • BMI AND midwives OR care • Intrapartum care AND obesity • General practitioners AND obesity OR care • Health professionals AND caring OR obese • Midwives AND caring OR obese • Midwives AND experiences OR obesity • Maternal obesity AND midwives • Maternal obesity AND midwives OR care • Maternal obesity AND student midwives OR care • Midwives AND caring OR high risk • Midwives AND caring OR BMIs • Nurses AND obesity OR care • Obstetricians AND obesity OR care • Patients AND obesity OR care • Postnatal care AND obesity • Pregnancy AND obesity • Women AND obese OR care • Women AND maternity care OR obesity	• CINAHL • Cochrane Database • Proquest • Pubmed

To capture a wider search base, but also to streamline the approach for this narrative review, specific frameworks such as PICO (P: Population, I: Intervention, C: Control, O: Outcome) are suggested (Williamson & Whittaker, 2014, p.33). They represent useful mnemonics which can help researchers to clearly structure their search strategy. Specifically for qualitative research questions, the mnemonic PEO (P: Population and their problems, E: Exposure, O: Outcomes or themes) is recommended, whereas PICO is recommended for quantitative research questions (Bettany-Saltikov, 2012).

Whilst quantitative studies are to be included, the approach for this research is qualitative, and the PEO format was therefore chosen. This is supported by Bettany-Saltikov (2012) who contends that the requirements of the search parameters may not exactly fit the requirements of these frameworks, and suggests that the mnemonic (format) used should not drive the search, but inform it. Table 2.4 provides an explanation of how the PEO format with the intended research topic was adopted for the narrative review for healthcare professionals; obese patients' perspectives can be found in table 2.5.

Table 2.4: PEO search parameters

Research topic: What does it mean to healthcare professionals to care for women with BMIs ≥30kg/m^2 during the childbirth continuum and patients (men and women) outside of maternity care?

P	Population and their problems	Healthcare professionals who have cared for obese patients during maternity care and other healthcare encounters outside of maternity care
E	Exposure	Obesity care encounters with patients
O	Outcomes or themes	Meaning, experiences, attitudes towards providing care

Table 2.5: PEO search parameters

Research topic: What does it mean to women with BMIs ≥30kg/m^2 to receive care during the childbirth continuum and patients (men and women) outside of maternity care?

P	Population and their problems	Obese women who have received maternity care and obese patients who have received care outside of maternity care
E	Exposure	Obesity care encounters with healthcare professionals
O	Outcomes or themes	Meaning, experiences, attitudes towards receiving care

To aid the sifting of the literature found from the search strategy, inclusion and exclusion criteria are required (Garrard, 2014), so were devised to assist in streamlining the approach to the review.

Inclusion criteria:

- Papers with aims or hypotheses related to what it means to provide obesity care.
- Papers relating to obesity care and to midwives, student midwives or other healthcare professionals, including: nurses, general practitioners and doctors (obstetricians, anaesthetists, surgeons and physicians).
- Papers relating to obese women and maternity care.
- Papers relating to obese patients (men and women) outside of maternity care.
- Papers written in English.
- Primary or secondary research papers.

Exclusion criteria:

- Papers not written in English.
- Opinion papers.

The initial inclusion measures entailed the requirement to include midwives and student midwives and their experiences of caring for women with BMIs over 30kg/ m^2, and this was expanded to include other healthcare professionals both within and outside of maternity care. The focus for the narrative review was therefore on obesity care; on obese women's and patients' experiences of receiving care; and on the perspectives of different healthcare professionals (obstetricians, general practitioners, nurses and anaesthetists) on what it means to them to provide obesity care.

2.4.1 Challenges in reviewing the literature

The challenge of conducting this narrative review was to ascertain the relevance of the studies found. Since the first literature search was conducted in 2010, there has been a plethora of studies on obesity, both nationally and internationally. Therefore, tracking and filtering of the studies found for potential inclusion within the review was required (Green *et al.,* 2006). Time was taken to distinguish their relevance by reading the articles' abstracts to judge their suitability to be included within this review (Steen & Roberts, 2011); this was assisted by the inclusion criteria and, if the searches found an unmanageable number of papers, by refocusing on obesity care experiences rather than on obesity management.

No studies were found from the literature search which encompassed midwives and student midwives, which confirms that the study does have an original contribution to make to the body of midwifery knowledge, but a number of studies were found which met the search criteria and therefore a tracking sheet was populated (Garrard, 2014) to aid determination of merit for inclusion within the review (table 2.6, Appendix 1).

Critiquing frameworks can aid the appraisal of the quality of published research articles, and the critiquing frameworks devised by Steen and Roberts (2011) for both qualitative and quantitative research papers were utilised when reading through the articles to determine their merit (an example of Steen and Roberts' (2011) qualitative critiquing framework can be found in Appendix 2). These frameworks were chosen due to my familiarity with them, as I had devised the frameworks with my co-author M. Steen. In support of their use, they are also now being utilised by Masters students – one example is a study involving cancer nurse specialists (Boothman, 2014) – and referenced within an article on how to critique research papers (Baker, 2014). The key areas which were focused upon in this literature review as recommended by Williamson and Whittaker (2014, p.37) were 'research question, research design, sampling, data collection, data analysis and credibility of

findings'. However, as the focus of this narrative review is to theme the findings of the literature to give a broad perspective (Kumar, 2014) on obesity care, the key findings within the studies were also considered.

2.4.2 Findings of the narrative review literature search

As previously stated the search strategy encompassed both qualitative and quantitative studies, and both qualitative aspects of obesity care and quantitative attitudes towards providing obesity care are therefore included within the review. This initially realised 23 studies that were deemed suitable for inclusion. However, upon closer inspection one study, Smith and Lavender's (2011) meta-synthesis of maternity experience for women with a body mass index ≥30kg/m^2, was withdrawn from the review because the studies included within the paper were either out of date for the search parameters or were already included within the review. A summary for each study included in the narrative review can be found in table 2.7, appendix 3.

Of the 22 studies included within the review, the recent studies which explored the experiences and attitudes of midwives and health professionals towards caring for women with BMI ≥30kg/m^2 were considered to be the most relevant (Heslehurst, Lang, Rankin, Wilkinson & Summerbell, 2007b; Heslehurst *et al.,* 2011b; Schmied, Duff, Dahlen, Mills & Kolt, 2011; Biro, Cant, Hall, Bailey, Sinni & East, 2013; Wilkinson, Poad & Stapleton, 2013). Studies that focused on experiences of weight management were included within the review as there were aspects of obesity care found within them. These studies comprised weight interventions and management from the perspectives of midwives (Macleod, Gregor, Barnett, Magee, Thompson & Anderson, 2012), midwives and women (Furness, McSeveny, Arden, Garland, Dearden & Soltani, 2011) and health professionals (Smith, Cooke & Lavender, 2012), and a systematic review of qualitative evidence of weight management from the perspectives of healthcare professionals and the women themselves (Johnson, Campbell, Messina, Preston, Woods, & Goyder, 2013).

To provide a wider context to obesity care, however, healthcare professionals outside of maternity care delivery were also included within the narrative review. Studies included student nurses and registered nurses' views on providing obesity care (Poon & Tarrant, 2009), a literature review of nurses' attitudes towards adult patients who are obese (Brown, 2006) and more specifically nurses' perceptions of caring for obese patients in a bariatric ward (Jeffrey & Kitto, 2006). A qualitative study of GPs' views of treating obesity (Epstein & Ogden, 2005) was also included.

It was important to include women's perception of maternity care. Four studies were identified that explored the views of obese women and the maternity care they had received (Nyman, Prebensen & Flensner, 2010; Furber & McGowan, 2011; Keely, Gunning, & Denison, 2011; Lindhart, Rubak, Mogensen, Lamont & Joergensen, 2013), and one study encompassed both women's and healthcare providers' views (Mulherin, Miller, Barlow, Diedrichs & Thompson, 2013). One study was included which focused on women's experiences of being overweight/obese patients outside of maternity care (Merrill & Grassley, 2008). Of note is that, though the search term had been for patients and had not been gender specific just to women, only this one study was found to be relevant. Three further studies were found which investigated women's views of weight management and dietary interventions during maternity care delivery (Khazaezedeh, Pheasant, Bewley, Mohiddin, & Oteng-Ntim, 2011; Atkinson, Olander, & French, 2013; Patel, Atkinson, & Olander, 2013).

2.4.3 Methodological considerations of papers included in the narrative review

All studies included within the review state a research aim, rather than a research question; an answerable research question would have benefited all the studies to frame and establish the direction of the research (Curry & Nunez-Smith, 2015). A research aim gives a broad outline and statement of what the researcher wants to achieve, and is usually used in formulating a research proposal, with a research question being required to further determine the actual focus of the research (Collins, 2010). This is supported by Andrews (2003) who argues that a research question is usually developed from the research aim and a literature review further helps to refine that question (Moule & Hek, 2011). An absence of a research question could, therefore, be viewed as a limitation of the studies included in the review. However, a research question not stated may simply be an oversight by the authors or not even that, as some journal publication requirements state the need for an aim or objective in the presentation of a research study's abstract, but not a research question (Thompson, 2005).

Choosing and applying the appropriate research design and attendant methodology are key to ensuring rigour in a research study (Steen & Roberts, 2011). Therefore the methodologies of the chosen studies included fifteen qualitative and five quantitative studies, a literature review and a systematic review of qualitative evidence (appendix 3).

The setting for the samples for all studies within the review covered a spectrum of countries. The sample settings for studies by Biro *et al.* (2013), Jeffrey and Kitto (2006), Mulherin *et al.* (2013), Schmied *et al.* (2011), and Wilkinson *et al.* (2013) were in Australia. Poon and Tarrant's (2009) study was set in Hong Kong, whereas the Nyman *et al.* (2010) study was conducted in Sweden, that of Lindhart *et al.* (2013) in Denmark, and that of Merrill and Grassley (2008) in the United States of America. Brown's (2006) literature review encompassed seven studies outside of the United Kingdom (four USA, two Canada and one joint Canada and USA). It is questionable whether studies conducted in these countries could be deemed applicable to one conducted in the North of England as is the intention of this study (Griffiths, 2009). The sample settings for the remaining studies were within Scotland (Keely *et al.*, 2011) and different parts of England (Atkinson *et al.*, 2013; Epstein & Ogden, 2005; Furber & McGowan, 2011; Furness *et al.*, 2011; Heslehurst *et al.*, 2007b; Heslehurst *et al.*, 2011b; Khazaezadeh *et al.*, 2011; Macleod *et al.*, 2012; Patel *et al.*, 2013; Smith *et al.*, 2012). Thirteen studies included in the Johnson *et al.* (2013) review were based in England, therefore all the studies previously referred to set in the UK could be viewed as comparable sample settings to this study.

The type of sampling was not disclosed in a number of the studies (Atkinson *et al.*, 2013; Epstein & Ogden, 2005; Furber & McGowan, 2011; Keely *et al.*, 2011; Macleod *et al.*, 2012; Merrill & Grassley, 2008; Mulherin *et al.*, 2013; Nyman *et al.*, 2010; Patel *et al.*, 2013; Schmied *et al.*, 2011; Wilkinson *et al.*, 2013), which is a limitation (Boswell & Jackson, 2014). Biro *et al.* (2013) and Poon and Tarrant (2009) state that they have used convenience sampling, which can fit the remit of a cross-sectional survey (Rees, 2011). Purposive sampling is known particularly to meet the requirements of qualitative research (Curry & Nunez-Smith, 2015) and has been used by Heslehurst *et al.* (2007b), Heslehurst *et al.* (2011b), Jeffrey and Kitto (2006), Furness *et al.* (2011), Khazaezadeh *et al.* (2011), Lindhart *et al.* (2013), and Smith *et al.* (2012), which adds credibility (Kumar, 2014) to the published studies.

The sample participants ranged from midwives (Biro *et al.,* 2013; Macleod *et al.,* 2012); healthcare professionals including obstetricians, midwives, dietitians and physiotherapists who had cared for women antenatally (Wilkinson *et al.,* 2013); and also, to add to the previous sample, anaesthetists and ultrasonographers (Smith *et al.,* 2012). Antenatal, intrapartum and postnatal experiences and views were elicited from healthcare professionals encompassing the above, but also included a diabetic nurse (Heslehurst *et al.,* 2007b). Participants outside of maternity care included nurses who worked on a bariatric ward (Jeffrey & Kitto, 2006), student nurses and registered nurses who cared for adult obese patients (Poon & Tarrant, 2009), and

general practitioners (GPs) (Epstein & Ogden, 2005). The eleven papers included in Brown's (2006) literature review focused on nurses and the care they provided for adult obese patients. The studies therefore encompass a broad spectrum of experiences and views towards providing care for adults with obesity both within and outside of maternity care. To garner another perspective on obesity care, pregnant women were included in the studies' samples (Atkinson *et al.,* 2013; Keely *et al.,* 2011; Lindhart *et al.,* 2013), and viewpoints were also elicited from women postnatally (Furber & McGowan, 2011; Khazaezadeh *et al.,* 2011; Mulherin *et al.,* 2013; Nyman *et al.,* 2010; Patel *et al.,* 2013) and from adult patients who were overweight/obese outside of maternity care (Merrill & Grassley, 2008). The sample sizes were deemed suitable for all studies (Kumar, 2014), except Biro *et al*. (2013) who only achieved a response rate of 7% for their survey.

The Mulherin *et al*. (2013) research encompassed two studies. Study one focused on women's perceptions of care they had received, and has been included within the review. Study two gave a hypothetical case study of a pregnant woman in different weight ranges, and invited medical students and midwifery students to comment on how they perceived the different weight ranges; this has not been included in the review as the students were not identified as having provided care for obese pregnant women.

The quantitative studies (Poon & Tarrant, 2009; Biro *et al.*, 2013; Macleod *et al.*, 2012; Mulherin *et al.*, 2013; Wilkinson *et al.*, 2013) all adopted survey methodology, quantifying responses to set questions (Polit & Beck, 2012) rather than developing new theory. Four of the studies clearly stated that they had utilised a cross-sectional survey design (Poon & Tarrant, 2009; Biro *et al.*, 2013; Macleod *et al.*, 2012; Wilkinson *et al.*, 2013), whereas Mulherin *et al.* (2013) made reference to their use of a postal survey questionnaire; this did meet the requirements of a cross-sectional survey, a snapshot in time (Robson, 2011) to examine women's perception of the maternity care they received in relation to their BMI measurement. The other four surveys also appeared to meet the intention of their research aims (appendix 3) and therefore the choice of a cross-sectional survey was deemed to be appropriate.

All five studies utilised questionnaires for data collection: three were online questionnaires (Biro *et al.*, 2013; Macleod *et al.*, 2012; Wilkinson *et al.*, 2013), and the other two chose self-administered (Poon & Tarrant, 2009) and postal routes (Mulherin *et al.*, 2013), all appropriate techniques to collect information for a cross-sectional survey (Parahoo, 2014). The Biro *et al.* (2013) questionnaire, however, involved answering 39 questions, the most questions posed in all of the surveys, which could be construed as a lengthy and time consuming questionnaire to

complete (Roberts, 2012). This could explain why only a small minority of questionnaires (7% response rate) were completed (Biro *et al.*, 2013), whilst the other quantitative studies achieved good response rates. The type of information collected by the questionnaires utilised in the studies in essence revealed quantitative data, where no meaning can be elicited from the responses given (Roberts, 2012), but the collected data did put a numerical value on respondents' views on both obesity care delivery (Poon & Tarrant, 2009; Biro *et al.*, 2013; Macleod *et al.*, 2012; Wilkinson *et al.*, 2013) and obesity care received (Mulherin *et al.*, 2013). Four of the studies utilised descriptive statistics for data analysis; however, Mulherin *et al.* (2013) employed inferential statistics for their 627 respondents out of a possible 2240 women who were contacted to participate and were sent a questionnaire to complete. This study aimed to measure positive and negative qualities of maternity care received in relation to their BMI measurement. This could be a limitation of their study as they do not report exact figures for how many participating women had a raised BMI; they do, though, provide their statistical mean and range (mean = 24.66kg/m^2, range 15.57–46.50kg/m^2). It would appear that there are some limitations regarding the quantitative studies included in the review; however, on the whole they demonstrate reliability as to the data collections methods used (Robson, 2011), although not always in the number of questions posed.

Of the seventeen qualitative studies (appendix 3), eleven followed an over-arching qualitative research design, one an interpretive constructionist method (Heslehurst *et al.*, 2011b), and three a phenomenological approach; of the latter, two were descriptive (Lindhart *et al.*, 2013; Nyman *et al.*, 2010) and one hermeneutic (Merrill & Grassley, 2008). By following the qualitative paradigm this enabled experiences and meaning (Willis, 2007) attached to caring for this group of women, and their experience of care, to be explored. The two remaining studies were a qualitative literature review (Brown, 2006) and a systematic review of qualitative literature (Johnson *et al.*, 2013). Both appear to have followed the remit of what is required to determine quality evidence by adopting the requirements for producing credible findings for these type of review (Williamson & Whittaker, 2014).

It is interesting to note that eight qualitative studies adopted semi-structured interviews for data collection, hence the authors had specific topics that they wanted to address (Robson, 2011). It could be argued that a semi-structured approach has a preference towards the information that the researcher wants to collect (Steen & Roberts, 2011), and that by following a specific research methodology there would be certain requirements for data collection (Parahoo, 2014). A low structured

interview was applied by Nyman *et al.* (2010) and Merrill and Grassley (2008) to follow the tenet of phenomenological research methodology i.e. to gather information from the point of view of participants (Mapp, 2008). Conversely, Lindhart *et al.* (2013) collected data using semi-structured interviews, which could be considered to be not fitting the underpinning philosophy of descriptive phenomenology (Mapp, 2008). All the interview data was collected via one-to-one interviews, which fits the remit of data collection for a qualitative study (Barbour, 2008). Three studies (Heslehurst *et al.*, 2011b; Khazaezedeh *et al.*, 2011; Schmied *et al.*, 2011), however, utilised focus groups and semi-structured interviews. Data in the Schmied *et al.* (2011) study was collected by focus groups for the midwives and one-to-one interviews with the other three health professionals. Credibility could have been increased (Lincoln & Guba, 1985) by the obstetricians and anaesthetist participating in the same focus groups or even collecting data from them in their own focus group (Gillham, 2005), and comparing the findings with those of the midwives. Furness *et al.* (2011) utilised two different focus groups for the two different groups of participants (midwives and women), so that each group would feel free to express opinions (Barbour, 2013).

The qualitative studies included within the review essentially followed a thematic data analysis approach, which is appropriate for qualitative research (Polit & Beck, 2012), and how this was achieved and the specific data analysis frameworks utilised were made explicit in all articles. This added authenticity to the findings (Butler-Kisber, 2010).

The findings from the qualitative studies can be considered to have demonstrated trustworthiness and authenticity in that within all the papers clear indications of how the research was conducted were included (Kumar, 2014). However, to fully ensure credibility of the studies' findings in accordance with the Steen and Roberts (2011) critiquing framework for qualitative papers, it should be ascertained if the findings have answered the research questions posed. As no research questions were provided, this potentially reduces the credibility of the findings. As previously discussed, however, the research aim of a study rather than its research question is a requirement for publication in the journals used. Credibility can be measured as to whether the research aims have been met, and in this respect appears to have been demonstrated by the qualitative studies included in the review. As to the validity to the results of the quantitative studies, the Steen and Roberts (2011) critiquing framework for quantitative papers states that to determine if the results are valid and relevant, it must be established if the research question or

hypothesis has been answered, and (similarly to the qualitative papers) the quantitative studies did not state a research question (or hypothesis).

2.5 Findings of the Narrative Review

Findings from the narrative review are detailed under the following topics: difficulties with routine care delivery, communication challenges, risk perception, weight management, weight stigma, positive aspects of care, deficiency in knowledge and subsequent training requirements, and public health issue. These represent a summary of findings from across the twenty two papers reviewed.

2.5.1 Obesity care: Difficulties with routine care delivery

'Difficulties with routine care delivery' was emphasised more within maternity care, rather than studies outside this sphere of care. Within maternity care, these concerned the difficulties experienced with care such as abdominal palpation to determine fetal position and with monitoring the fetal heart rate (Heslehurst *et al.,* 2007b; Schmied *et al.,* 2011). Due to these difficulties intervention was required such as ultrasound scans and the application of fetal scalp electrodes; however, this led to further problems when the scans were not able to determine size or presentation of the fetus (Heslehurst *et al.,* 2007b). Similar problems led obese pregnant women in Furber and McGowan's (2011) study to become upset and to feel humiliated. Other problems in maternity care delivery related to anaesthetists being unable to site routine epidurals for pain relief during labour care (Heslehurst *et al.,* 2007b; Schmied *et al.,* 2011).

Additional challenges involved not being supported by appropriate resources to deliver routine care, such as time and lack of appropriately sized equipment e.g. blood pressure cuffs (Heslehurst *et al.,* 2007b; Heslehurst *et al.,* 2011b; Schmied *et al.,* 2011; Smith *et al.,* 2012). Outside of maternity care, women patients in Merrill and Grassley's (2008, p.141) study used the concept of 'struggling to fit in' to express how the difficulties of equipment being unable to accommodate their size, e.g. a wrong sized BP cuff, made them dread the prospect of examinations. There were also health and safety concerns regarding the potential risk of injury to staff in the delivery of routine maternity care (Schmied *et al.,* 2011; Smith *et al.,* 2012), such as wrist and shoulder strains during ultrasound screening. These findings identify the problems that can ensue in endeavouring to perform routine care delivery to obese women during maternity care, and highlight the extent to which these complications impact on women patients' perceptions of care received.

2.5.2 Obesity care: Communication challenges

A common theme found within all the studies are the challenges to communication both within and outside of maternity care. Within maternity care, Johnson *et al*. (2013) discovered that there is complexity in interactions from the perspective of both care givers and the women themselves. In the Smith *et al*. (2012, p.158) study, participants felt that the subject of obesity was a 'conversation stopper', and the Heslehurst *et al*. (2011b) participants stated using the term 'obesity' was a barrier to addressing the issue of obesity. This is also supported by midwives in the Furness *et al*. (2011) study, who felt that the stigma of obesity can inhibit the midwives' communication with pregnant women. Communication encounters can become unduly protracted when trying to ensure that the women are not offended or upset by the information imparted, and this is supported by the participants in the Keely *et al*. (2011) study. Another point to address is that lack of knowledge can also affect and lengthen communication encounters (Heslehurst *et al.,* 2011b). The deficiencies in knowledge and education that the respondents and participants highlighted in the Schmied *et al*. (2011) and Biro *et al*. (2013) studies inhibit effective communication with this group of women. When healthcare professionals have felt sufficiently confident to raise the subject of obesity, women have disengaged with the service and transferred their care to another maternity unit (Heslehurst *et al.,* 2007b). This confirms the findings from Furber and McGowan's (2011) study that obese pregnant women can be sensitive during interactions with healthcare professionals concerning obesity, and referring to it can cause distress. It must be a consideration that the normalisation of obesity, whereby pregnant obese women do not consider that there is an issue with their weight and body size (Heslehurst *et al.,* 2007b), could have an impact on these encounters and could be directly causing the women to be defensive and hostile (Macleod *et al.,* 2012).

Healthcare professionals in the Heslehurst *et al.* (2011b) study suggest that there is a perceived difference between what they say and what women hear, and hence women can feel offended, stigmatised and targeted when that is clearly not the intention of the healthcare professionals.

A further area of concern relating to communication was gestational weight gain and weight management, from the perspectives of the women receiving the advice and the healthcare professionals delivering the guidance. A discussion of these findings can be found under 'Weight management' (section 2.5.4).

There were suggestions to improve communication encounters within some of the studies and these ranged from the requirement to choose words sensitively so

as not to cause offence (Smith *et al.*, 2012), to being truthful and honest (Heslehurst *et al.*, 2011b), and that the communication should be clear and conveyed in an understanding manner (Furber & McGowan, 2011).

The findings illustrate the complexities involved in communicating with women when providing obesity care, and identify the need for improved education and training in this area. Healthcare professionals are openly aware of this and have highlighted in the studies how communication interactions should be conducted.

2.5.3 Obesity care: Risk perception

Risk perception was found in studies from the perspective of both healthcare professionals and pregnant obese women. The women had not been aware that there were risks associated with becoming pregnant when obese (Heslehurst *et al.,* 2007b; Furness *et al.,* 2011; Keely *et al.,* 2011), and also did not acknowledge this relationship when minor or major complications caused by their obesity arose in their pregnancy (Keely *et al.,* 2011).

Conversely, the Lindhart *et al.* (2013) study stated that the women felt worry and sadness before they became pregnant because of their weight issue; and that being pregnant made them feel more uneasy about their size, with some participants expressing the view that their pregnancy was overshadowed by their obesity status. Healthcare professionals have a responsibility to inform obese pregnant women of the risks, despite it being difficult to do so (Heslehurst *et al.*, 2011b). The risks include increased possibility of developing co-morbidities than women with normal range BMIs: deep vein thrombosis, gestational diabetes, pressure sores, and pre-eclampsia during the antenatal period, and higher rates of wound infection and the requirements for additional hospitalisation postnatally (Heslehurst *et al.*, 2007b). Healthcare professionals therefore expressed concern over the greater risks of complications that this group of women face (Mulherin *et al.*, 2013). However, informing obese pregnant women of the risks in pregnancy can make them feel they are in a very difficult position, as the women are unable to reduce these risks in the majority of situations (Heslehurst *et al.*, 2011b; Schmied *et al.*, 2011).

An increased medicalisation of pregnancy for this group of women because of their determined risk status was noted in four of the studies (Nyman *et al.*, 2010; Furber & McGowan, 2011; Keely *et al.*, 2011; Lindhart *et al.*, 2013). However, even though the women in the Keely *et al.* (2011) study were referred to an anaesthetist because of their size, they felt that their midwives treated them as normal and low risk. This did, however, lead them to become confused by the contradictory information they were receiving from two different groups of health professionals, as

the anaesthetist viewed them and the care required as being high risk. The women in Furber and McGowan's (2011) study suggested that when it was communicated to them that their size contributed to risk and could make it problematic to assess the progress of pregnancy, they experienced self-loathing, guilt and self-blame. The high risk status of their pregnancy increased the need for medicalisation and they therefore felt it neglected their feelings as expectant mothers (Furber & McGowan, 2011). The women want to experience humanising dealings with healthcare professionals, where their personal needs (Nyman *et al.*, 2010; Furber & McGowan, 2011) are the focus for care delivery. An alternative perspective from nurses working on a bariatric ward are that they are required to practise within the medical model of care, and this can cause them to feel conflicted as they wish to care for their patients within a holistic framework (Jeffrey & Kitto, 2006).

These findings point to obesity care being a complex area in which to practise, specifically in relation to the requirements of healthcare professionals to determine and convey risk status to obese individuals and their response to this information. The pregnant obese women themselves have often not been aware of the attendant risks of being obese and therefore have no wish for their pregnancy to be overshadowed by their identified risk classification. Whilst there is no doubt that increased medicalisation is apparent and necessary when caring for obese women and patients, many healthcare professionals would like to adopt a holistic approach to care.

2.5.4 Obesity care: Weight management

Responsibility for providing weight management advice for pregnant obese women generates conflicting findings within the studies. Only 46% of midwife participants in the Macleod *et al*. (2012) study feel that midwives should be offering weight management advice. 11.9% of respondents in the Wilkinson *et al*. (2013) study contend that it is not their job to give weight management advice, though it is not clear which professional group these figures represent as obstetricians, midwives and allied healthcare professionals were all included. Though midwives could provide some general advice, they feel that women should be referred to specialist advice for weight management, such as that from a dietitian (Heslehurst *et al.,* 2011b; Macleod *et al.,* 2012). It is evident that the role of weight management advisor for obese pregnant women is not considered to be part of a midwife's remit. A multidisciplinary approach to weight management is thought to be optimum in the management of gestational weight (Macleod *et al.,* 2012). Dietitians were unclear as to their role in maternity obesity care, because they do not usually receive a referral

until pregnancy is well advanced (Heslehurst *et al.,* 2011b). Participants in the Heslehurst *et al*. (2007b) study would like improved links with dietetic services, but were aware of resource implications. Findings from the study indicated that out of sixteen maternity units, only two had dietitians assigned to the maternity services.

GPs in Epstein and Ogden's (2005) study feel that managing obesity and weight is the patients' responsibility and do not view it as a medical problem. The GPs' experience, however, is that their patients want to hand over responsibility to them; and as this can potentially have a detrimental effect on their relationship, GPs listen and endeavour to offer an understanding of their patients' problems regarding obesity, but cannot provide a solution. In contrast obese women entering the maternity services do become the domain of medical focus because of the potential risks to the mother and fetus during pregnancy (Williams, 2012). It would appear, however, that pregnant women want the focus of their care to be based on healthy diets and physical activity, rather than on their weight (Johnson *et al.*, 2013). Smith *et al.* (2012) reported that healthcare professionals found introducing a lifestyle intervention programme for weight management in pregnancy was well received by pregnant women with a BMI ≥30kg/m^2. Furness *et al.* (2011), however, found women did not want their pregnancy care dominated by their weight. The findings therefore are very conflicted as to whom should be responsible for weight management both within and outside the maternity services.

In some studies the size of the healthcare professionals does appear to have an impact on the delivery of weight management advice. Healthcare professionals with raised BMIs were more willing to engage with weight management advice in the Wilkinson *et al.* (2013) study, although Brown (2006) discovered a contradiction to these findings in his literature review of nurses' experiences. Similarly, in Schmied *et al.* (2011) healthcare professionals with raised BMIs themselves felt very uncomfortable and reluctant to engage in conversations about weight management in maternity care, whereas others did not have a problem with this type of dialogue. Therefore inferring a clear contradiction in findings.

There is much debate as to the most opportune time for weight management to take place within the maternity services. Healthcare professionals in the Heslehurst *et al.* (2011b) study recommend the antenatal period as the ideal time to engage women with weight management services. Participants in the Heslehurst *et al.* (2007b) and Macleod *et al.* (2012) studies contend that pre-conception is the optimum time, because they consider the antenatal period is too late to have an impact and question the feasibility of weight interventions during pregnancy, as pregnant women cannot be advised to diet. Conversely, Smith *et al.* (2012) believe

that pregnancy is the best time to intervene regarding weight management. Yet, the Furness *et al.* (2011) study discovered that midwives struggle to motivate and engage obese pregnant women in weight management: the women who took part in the study stated that they did use pregnancy as an opportunity and excuse to overeat. This dispels the theoretical viewpoint that pregnancy is the optimum time to engage women in weight management interventions (Furness *et al.*, 2011). Further, women in the Khazaezadeh *et al.* (2011) study recommend that weight intervention should take place during the postnatal period.

Many barriers were identified which restrict the provision of effective weight management in maternity care. Pregnant obese participants themselves highlighted the mixed, conflicting, confusing and inconsistent messages they received about gestational weight gain and management (Furness *et al.*, 2011; Atkinson *et al.*, 2013; Lindhart *et al.*, 2013). This is supported by the Johnson *et al.* (2013) literature review which asserted that weight management advice offered by healthcare professionals in pregnancy was inadequate and vague. Women want straightforward, unambiguous and individual advice, and for their health providers to have basic knowledge regarding the provision of nutritional advice (Lindhart *et al.*, 2013). This is reinforced by midwives in the Furness *et al.* (2011) study suggesting that women lack knowledge and skills to maintain a healthy lifestyle, and this is supported by some of the women in the Khazaezadeh *et al.* (2011) study of service users' input into a maternal obesity weight management intervention. Other women within the same study, however, were offended at the presumption that they did not understand what healthy eating encompassed (Khazaezadeh *et al.*, 2011). Participants in the Nyman *et al.* (2010) study did not want their body size to be the focus of interactions and were defensive that this may occur. Whilst the Heslehurst *et al.* (2007b) study discerned that some women are embarrassed by discussing their weight, others do not see it as a problem. The women who took part in the Furness *et al.* (2011) study perceived the lack of information they received as being the root of the problem. Midwives in the Macleod *et al.* (2012) study, however, suggest that it is the women's perceived denial in not recognising they have a weight problem or wishing to comply with advice that is significant.

From the women's perspective in the Khazaezadeh *et al.* (2011) study, they did not understand that they had been classified as obese because their BMI was not explained to them, just referred to. In the Biro *et al.* (2013) study many midwives incorrectly identified the BMI classifications, demonstrating their own lack of knowledge. This is also supported by the Wilkinson *et al.* (2013) study where just under 50% of healthcare professionals correctly identified overweight and obese

women's correct BMI measurements. These discussions quite clearly reflect that maternal obesity care and weight management is one of the most multifaceted, complex and idiosyncratic areas of care delivery.

Healthcare professionals do perceive that they have difficulties with communication (Smith *et al.*, 2012), and in particular exhibit a reluctance to discuss obesity and weight management for fear of being reported and causing alienation (Macleod *et al.*, 2012), because weight management for an obese individual can be a sensitive topic (Johnson *et al.*, 2013). In fact, from healthcare professionals' perspectives they find it slightly easier to discuss risks than weight management in pregnancy (Smith *et al.*, 2012). Discussing their weight with pregnant obese women is considered to be very challenging (Schmied *et al.*, 2011). This is reinforced by 46.7% of midwives in the Biro *et al.* (2013) study being reluctant to inform pregnant women that they were overweight or obese. This is further supported by Johnson *et al.* (2013), who discovered healthcare professionals were reluctant to discuss weight management with women with high BMIs. Even those midwives in the Macleod *et al.* (2012) study who would like to give weight management advice expressed the view that they do not feel sufficiently confident in this subject area to do so. This is supported by 60% of midwives in the Biro *et al.* (2013) study. Ultimately, healthcare professionals would like to be enabled to provide nutritional advice (Heslehurst *et al.*, 2011b).

The reasons for not engaging in a weight management intervention are complex and can be a consequence of depression, low self-esteem and self-loathing according to Khazaezadeh *et al.* (2011). The following quote from an American patient demonstrates how all-consuming it can be to have a weight issue: 'Being overweight is the worst thing in my life, and it consumes my life. It's not something I think about one or two times a day. It's something that is always, always there from getting out of bed to going to work' (Merrill & Grassley, 2008, p.142). The manner in which a referral is made to weight management services can also have an impact. Atkinson *et al.* (2013) discovered that pregnant obese women were upset and offended by referrals to weight management services because they had received inadequate explanations. Participants in the Patel *et al.* (2013) study, however, found it acceptable for midwives to refer them to weight management services, but gave reasons for not engaging with the service as being: work commitments, inconvenient location and time, lack of motivation and feeling unwell. Female patients in the Merrill and Grassley (2008) study felt that not being listened to or feeling dismissed by medical staff did not have a helpful effect on their weight loss.

Different practices in monitoring weight in pregnancy and weight management were noted: some units advise women to stabilise their weight (Heslehurst *et al.*, 2007b; 2011b), whereas others give generic weight advice to all women (Heslehurst *et al.*, 2011b). Difficulties in weighing the women was a shared theme in two of the studies (Schmied *et al.*, 2011; Biro *et al.*, 2013). The overwhelming finding in Australia was that routinely weighing women antenatally was out of fashion and that, after the initial measurement, self-reporting of weight was relied upon. However, almost a third of respondents in the Biro *et al.* (2013) study revealed that maternal self-reporting for the first recorded measurement of the women's weight was depended upon. Another aspect of note is that women who were referred to weight management services were disappointed not to be weighed regularly (Atkinson *et al.*, 2013).

What is considered to be effective weight management in maternity care is a lifestyle approach delivered within a community based group setting (Khazaezadeh *et al.*, 2011; Smith *et al.*, 2012; Atkinson *et al.*, 2013) and to include hospital based healthcare professionals in its delivery (Smith *et al.*, 2012). From the women's perspectives, social support is considered to be a motivating factor to engage in weight management (Furness *et al.*, 2011; Atkinson *et al.*, 2013). As to how this programme should be delivered, some women want a structured programme (Atkinson *et al.*, 2013), and Heslehurst *et al.* (2011) suggest that it should be women's choice to participate, rather than prescriptive engagement. This is advocated by Atkinson *et al.* (2013), who found that women were happy to be referred to weight management services if they had engaged in a transparent and sensitive discussion with a healthcare professional about the referral. Macleod *et al.* (2012) would argue that continuity of care is key to enabling effective weight management; this is also supported by Furness *et al.* (2011) and Khazaezadeh *et al.* (2011), although these two studies have commented that this can be difficult to achieve. Female patients would contend that it is respect from their physicians which has a positive effect on their weight loss (Merrill & Grassley, 2008).

The findings indicate that the subject and the delivery of weight management guidance is a complex, complicated and somewhat contradictory area in which to provide maternal obesity care.

2.5.5 Obesity care: Weight stigma

Weight stigma is a common thread found in women's perceptions of maternity care. Within the Nyman *et al*. (2010), Furber and McGowan (2011), Furness *et al.* (2011), and Lindhart *et al*. (2013) studies, the women experienced and perceived that they

are stigmatised because of their size within the healthcare setting, and as a consequence felt humiliated (Furber and McGowan, 2011). Women in the Mulherin *et al.* (2013) study provided a demarcation of the points at which weight stigma is at its most pervasive during maternity care. The women in the study responded that this was most apparent during pregnancy, less so during postnatal care and was not a feature during intrapartum care. This was supported by Lindhart *et al*. (2013), whose participants experienced an accusatory response and perceived lack of empathy from healthcare professionals with regards to how their size could lead to problems in pregnancy. The women also felt stereotyped by their obesity in Furber and McGowan's (2011) study, which included hospital staff assuming that the women would be reluctant to mobilise postnatally. Findings from the Johnson *et al*. (2013) qualitative review of weight management in pregnancy found that the women felt a sense of stigmatisation during routine examinations. Of concern also are the findings from the Nyman *et al*. (2010) study, where women were reluctant to challenge care givers if they were treated badly or were suspicious that they were being negatively commented upon, because of the potential risk that this would impact on the care they received. The studies discussed provide a thought provoking insight into how obese women experience care. It is of concern that some studies suggest that this group of women can feel humiliated and stigmatised by the care they receive, and there is no doubt that negative emotions are experienced. Embarrassment was a shared theme between the Nyman *et al*. (2010), Furber and McGowan (2011) and Lindhart *et al*. (2013) studies, it being an emotion felt by the women in their encounters with all health professionals. This was particularly emphasised when their body size and in some instances exposed body became the focus for interactions in maternity care (Nyman *et al.,* 2010; Lindhart *et al.,* 2013). These feelings were reinforced by women patients feeling demeaned, dismissed, 'not quite human' and embarrassed by interactions with care providers (Merrill & Grassley, 2008). Outside the maternity setting, women patients in the Merrill and Grassley (2008) study expressed strongly that they wanted 'to feel more than their weight', suggesting that weight stigma is therefore not just evident in maternal obesity care.

From the perspectives of healthcare professionals, feelings and judgements that the participants expressed towards the women were most negatively verbalised in the Schmied *et al*. (2011) study which related to maternity care, and from nurses outside maternity care in Brown's (2006) literature review. It should be noted, however, that within this narrative review are examples where negative judgements were not expressed (Biro *et al.,* 2013; Helsehurst *et al.,* 2007b). There is an

awareness, however, that obesity can be viewed as a stigmatising issue, and that drawing attention to the possible risks of being obese and pregnant without providing structured support could introduce weight stigma (Heslehurst *et al*., 2011b).

In Brown's (2006) literature review a proportion of nurses were considered to have negative attitudes towards obese patients, causing concern that patients would be aware of these attitudes. This is supported by Poon and Tarrant's study (2009, p.2355) of student nurses and registered nurses' attitudes towards providing obesity care to patients outside of maternity care, which discovered that registered nurses had significantly higher levels of 'fat phobia' and held more negative attitudes towards obese patients than did student nurses. Despite the gender representation being unequal within the study, with 12.5% of student nurses and 15.1% of registered nurses being male, they did express more negative attitudes than their female counterparts. Brown (2006) argues that it is not clear cut to state that there is a gender bias towards obesity care and that the findings from his literature review are conflicted within this area. This suggests that weight stigma is pervasive within healthcare settings generally and is dependent on exposure to caring for obese patients. There are, however, contradictory findings regarding the size of nurses and their attitudes towards obese patients. Brown (2006) discerned that nurses with raised BMIs hold negative stereotypes, whereas Poon and Tarrant (2006) ascertained that those with normal range BMIs had more negative attitudes towards obese patients.

Within the studies there is recognition that obesity is a complex issue (Brown, 2006; Schmied *et al.*, 2011), however there is also acknowledgement that healthcare professionals need to be positive towards obesity care within the healthcare setting and not appear to be condemning (Heslehurst *et al.*, 2011). The Schmied *et al.* (2011) theme 'a creeping normality' relates to the fact that maternal obesity has become the norm, and recognises that there are tensions and contradictions to the acceptance of this fact. This has been evidenced within the discussion of weight stigma, which the findings suggest to be present both within and outside of maternity care.

2.5.6 Obesity care: Positive aspects of care

Positive aspects of care were expressed by the recipients: these involved receiving a smile, kindness, understanding, support and consideration (Nyman *et al.,* 2010). Women in the Keely *et al*. (2011) study stated that they had not been offended by any communication or experienced any negative care, and had experienced some

positive affirming encounters with maternity care personnel. This is also supported by participants in the Lindhart *et al*. (2013) study who felt healthcare professionals did try to engage with them positively at times, with a smile and an attempted caring attitude. This is reinforced by some women experiencing affirmative exchanges with healthcare personnel, who made them feel joyful and surprised when they were viewed as individuals 'being seen behind the fat and listened to' (Nyman *et al.,* 2010, p.427). Women in the Furness *et al*. (2011, p.6) study, who attended a specialist pregnancy obesity clinic called the 'Monday clinic', were 'delighted with midwives' constructive, non-judgemental attitude, the provision of dietary advice and physical activity programmes'. They also voiced that they benefited from the social support they received from the interaction with other women and the midwives.

From both healthcare professionals in maternity care (Furness *et al.*, 2011; Heslehurst *et al.*, 2011b; Smith *et al.*, 2012) and from a nursing and medical perspective, there is a desire to strive to provide non-judgemental care to obese patients (Brown, 2006; Jeffrey & Kitto, 2006; Epstein & Ogden, 2005). This has been particularly emphasised by Brown's (2006) findings which were previously discussed (Weight stigma, section 2.5.5) and which stated that a proportion of nurses had negative attitudes towards obese patients, in spite of which they displayed care and empathy for this group. This was supported by 61.6% of nurses and student nurses who felt empathy caring for obese patients (Poon & Tarrant, 2006). The findings demonstrate that healthcare professionals do mainly endeavour to provide non-judgemental and empathetic care for obese individuals.

2.5.7 Obesity care: Deficiency in knowledge and subsequent training requirements

A consistent finding within the studies was the requirement for further training to enable healthcare professionals to properly care for obese individuals. The majority of the studies critiqued identified the need to enable healthcare professionals to provide optimal care both within and outside of maternity services healthcare provision (Brown, 2006; Heslehurst *et al.,* 2011b; Smith *et al.,* 2012; Johnson *et al.,* 2013), although these training requirements did have different emphases. Respondents in the Wilkinson *et al.* (2013) study suggested that they required further training to enable them to provide adequate gestational weight advice for pregnant women who were overweight or obese. This is supported by Heslehurst *et al*. (2011b) and Smith *et al.* (2012). Further, Macleod *et al*. (2012) contend that without appropriate training, midwives giving weight management advice to pregnant women could damage their relationship. In support of this, the Biro *et al*.

(2013) results highlighted that midwives felt that there were deficiencies in their education and training on how to manage and communicate with this client group antenatally. Similarly, 'feeling in the dark' is how healthcare professionals expressed that they did not feel adequately prepared to care for obese women accessing maternity care (Schmied *et al.,* 2011). It is very apparent that the findings indicate that healthcare professionals would undoubtedly benefit from further education and training to provide optimal care for this client group.

From the women's perspectives, they themselves suggest that midwives need training and guidance so that they can sensitively discuss the topic of obesity (Keely *et al.*, 2011), and to improve their communication skills and to be less judgemental (Lindhart *et al.*, 2013). Biro *et al.* (2013) concur as their findings revealed that midwives need continuing professional development in communication and counselling to care for obese pregnant women: 77% of respondents in their study stated that their education and training on caring for this group was either inadequate or non-existent. Heslehurst *et al.* (2011b) argue that to establish rapport with pregnant obese women, healthcare professionals need to improve their knowledge, and require training on the use of appropriate language to discuss the subject of obesity sensitively.

2.5.8 Obesity care: Public health issue

That obesity care should be a public health issue was found from the perspectives of healthcare professionals both within and outside of maternity care. Smith *et al*. (2012) argue that obesity care should be considered a lifespan public health issue, whereby educating obese women during pregnancy on lifestyle changes could have a positive impact on the whole family. Nurses' views are that obesity is a major public health concern (Brown, 2006). This is supported by Biro *et al*. (2013) regarding maternal obesity care, whilst Heslehurst *et al*. (2011) contend that nationally there should be public health messages concerning the risks of becoming pregnant whilst obese.

2.6 Conclusion

This chapter has identified the processes followed to ascertain that, from the perspectives of midwives and student midwives, there is a gap in knowledge on the subject of caring for women with BMIs ≥30kg/m^2 during the childbirth continuum, thereby supporting the conduct of this study. It has been clearly demonstrated during the narrative review that this study remains unique in its potential development of new theoretical knowledge and also provides an insight into midwifery practice from the viewpoints of the prospective participants. It has also

identified and distinguished findings on obesity care both within and outside of maternity settings by healthcare providers and recipients of that care. Some findings from the studies have admittedly veered towards being contradictory and conflicting, but this only supports the view that obesity care is a very challenging and complex area for healthcare delivery.

Chapter 3: Theoretical Perspective

3.1 Introduction

This chapter will discuss the theoretical framework which underpins the research design for this study. This will include some of the important concepts that require consideration such as the adoption of a research paradigm, epistemological and ontological perspectives, and the suitability of the chosen methodology.

An interpretivist paradigm, together with the qualitative approach and the methodology of Interpretative Phenomenological Analysis (IPA) were chosen and adopted as appropriate to the analytical nature of the study, its focus being to examine the meaning that is attached to caring for women with raised BMIs during the childbirth continuum.

3.2 Theoretical Framework

Essential to any research study is a suitable choice of research paradigm, which provides a philosophical and theoretical framework to guide the study on its research design (Willis, 2007). At its most simplistic this could be viewed as encompassing the chosen methodology to include the type of sampling, data collection and data analysis that is required to conduct a research study (Steen & Roberts, 2011), however, in reality epistemological and ontological considerations are also needed (Dykes, 2004). Epistemological and ontological considerations were explored to guide the study design as they form theoretical perspectives to underpin the research process (Crotty, 1996). Epistemology is the study of the nature of knowledge, how we understand our world and relate this to the understanding of theories of what makes up knowledge (Cluett & Buff, 2006). It concerns 'questioning and understanding how we know what we know' (Griffiths, 2009, p.193). Ontology concerns 'our views about what constitutes the social world and how we can go about studying it' (Barbour, 2008, p.296). Walsh and Wiggens (2003, p.3), however, suggest that 'ontological assumptions are the researcher's views about the nature of reality and epistemological assumptions are the researcher's decisions about how best to gather data on this reality'. The type of information to be gathered therefore relates from an epistemological perspective to the experiences of caring by the participants, and ontologically to the multiple subjective realities which will be analysed and attached with meaning by the researcher for this study.

Key research paradigms are positivism, post-positivism, interpretivism, naturalism, constructivism, critical and postmodern (Mackenzie & Knipe, 2006;

Blaxter, Hughes, & Tight, 2006). The paradigms most commonly used in midwifery research are the positivist and naturalistic paradigms, and they appear to be the two paradigms which hold the most opposing views (Steen & Roberts, 2011). The positivist paradigm is considered to be the traditional paradigm underlying the scientific approach (Rees, 2011). This paradigm assumes that there is a fixed, orderly reality that can be objectively studied and is associated with quantitative research (Polit & Beck, 2012). Conversely, the naturalistic paradigm is often considered to be an alternative paradigm to the positivist one as it began as a counter movement to it (Lincoln & Guba, 1985). Its goal is to holistically understand how individuals construct reality within their natural setting, focusing on the interrelated human experience (Lincoln & Guba, 1985).

Though similar to naturalism, interpretivism looks at meanings and the way reality is subjectively constructed by individuals (Mackenzie & Knipe, 2006); this therefore provides a socially constructed reality for researchers to subjectively explore and understand, in essence, 'what the world means to the person or group being studied' (Willis, 2007, p.6). Interpretative researchers believe that shared meaning is discovered and understood by the subjective relationships with the groups being studied (Begley, 2008). This approach aims to retain the integrity of the experience being investigated, and efforts are made to understand and construct meaning from the perspectives of the participants (Smith *et al*., 2009). Although this paradigm would appear to guide the researcher, it has been argued that the term interpretivism has not been displayed in a consistent manner in the literature, and that a constructed reality is allied more to the constructivist paradigm (Butler-Kisber, 2010). It has, however, been suggested that constructivism and interpretivism do share some of the same features of determining reality, though the research practices aligned to their philosophical perspectives can be diverse (Boeije, 2010). Constructivism can be argued to be concerned with 'understanding from others' perspectives' (Dykes, 2004, p.19), with its purpose of explaining an experience (Butler-Kisber, 2010), rather than interpreting it as would be the interpretivist stance. Interpretivists' approach to research is that they seek to enrich understanding, rather than to explain their participants' experiences (Blaxter *et al*., 2006). Constructivists, it is suggested, construct meaning in a cultural reality, from what already exists and how we live in the world (Crotty, 1996), whereas interpretivists want to understand and interpret the descriptions (experiences) into processes of what determines reality (Weaver & Olson, 2006). Though constructivism does have relevance to this study, interpretivism provides a further construction of that meaning into an

interpretation of the experiences of the participants in order to gain understanding of what it means to them to care for women with raised BMIs.

For this study the theoretical perspective adopted is interpretivism, which informs phenomenology and hermeneutics, an interpretation of a lived experience (Alvesson & Skoldberg, 2009), and provides the philosophical basis for IPA (Smith *et al*., 2009).

Allied to the use of the interpretivist paradigm is the qualitative approach (Topping, 2010). With the qualitative approach the type of knowledge to be acquired focuses on experiences, thoughts, feelings and behaviour (Barbour, 2008). Qualitative research involves exploring these feelings, behaviours and experiences from the participants' points of view, thereby determining what something means from the perspectives of those taking part in the research study (Begley, 2008). Qualitative research is mostly gathered using the research methods of ethnography, phenomenology and grounded theory (Topping, 2010).

Qualitative research acknowledges the use of subjectivity (Davies, 2007) as opposed to quantitative approaches in which objectivity is the goal (Blaxter *et al*., 2006). Subjectivity is integral to the qualitative researcher's role as it allows for better understanding of the subject under investigation by the researcher (Robinson, 2006. Kingdon (2005) suggests, however, that reflexivity must be practised to ensure rigour is maintained and bias is reduced during the research process. The research approach that will be used for this study will be qualitative, because its purpose is to bring knowledge into view and it reflects an inductive approach to research (Parahoo, 2014). The data will be gathered and analysed from an interpretative subjective stance and use the interpretivist paradigm. The interpretivist paradigm informs and is aligned with phenomenological hermeneutics (Crotty, 1996) which form the theoretical and philosophical basis of this study (Smith *et al*., 2009).

In terms of this study, the ontological assumption by the researcher is that there could be multiple views of the reality of caring for women with a raised BMI during the childbirth continuum, and these experiences will be explored by the adoption of the IPA research methodology (Smith *et al*., 2009), which will be examined further in this chapter. Using a qualitative approach together with the interpretivist paradigm appears to best suit the study's epistemological viewpoint, and fits the guiding philosophy of the project which will gather information from the participants' perspectives and assist in interpreting their shared meanings of caring for women with raised BMIs during the childbirth continuum.

3.3 Methodological Framework of Interpretative Phenomenological Analysis: Introduction

The following will discuss the considerations given to the choice of methodology. IPA has its basis in hermeneutic phenomenology (Smith *et al*., 2009), therefore both the research approach of phenomenology and the development of IPA will be discussed. An appreciation of how IPA will be applied to this study will also be explored.

3.3.1 Development of phenomenology

Phenomenology is derived from a particular philosophy and provides a framework for a method of research (Dowling, 2007). Phenomenology as a philosophical method of inquiry was developed by the German philosopher Edmond Husserl (1859-1938). He is acknowledged as the founder of the phenomenological movement (Koch, 1995). The phenomenological term 'lived experience' is synonymous with this research approach and is derived from Husserl's 'Lebenwelt' (Cohen, 2000, p.7). Husserl's drive for phenomenological enquiry resulted from the belief that experimental scientific research could not be used to study all human phenomena, and had become so detached from the fabric of the human experience that it was in fact obstructing our understanding of ourselves (Crotty, 1996). He felt driven to establish a rigorous science that found truth in the lived experience (Moran, 2000). Husserl believed that in order to obtain real understanding of any phenomena, i.e. experience or happening, one must become in touch with one's own conscious state; this is known as 'Intentionality', a key concept of the Husserlian approach (Cohen, 2000, p.11). This type of phenomenology therefore involves the systematic investigation of consciousness as experienced by the subject (Moran, 2000).

The goal of Husserlian phenomenological enquiry is therefore to fully describe a lived experience and to develop insights from the perspectives of those involved by them detailing their lived experience of a particular time in their lives (Clark, 2000; Mapp, 2008). Husserl believed that a shared experience can exist and described it as 'intersubjectivity' (Lewis & Staehler, 2010, p.32). Subjectivity in the phenomenological sense means the world becomes real through contact with it (Moustakas, 1994; Oiler, 1982); however, Husserlian phenomenology stresses that only those that have experienced phenomena can communicate them to the outside world (Todres & Holloway, 2004). This type of phenomenology is referred to as descriptive 'eidetic' phenomenology (Moustakas, 1994; Russell, 2006, p.34). It is not

an approach that seeks to explain (Finlay, 2009), but to describe, which would not fit the remit of this study which seeks to interpret the participants' experiences.

3.3.2 Heidegger and hermeneutics

Heidegger, who was mentored by Husserl, developed another approach to phenomenological research known as 'hermeneutics', meaning interpretation (Cohen, 2000, p.5; Annells, 1996), the aim being to uncover hidden meanings by gaining an interpretation of a phenomenon/experience (Dowling, 2004). Hermeneutic phenomenology is considered to be the inquiry section of philosophical hermeneutics (Annells, 1996). Within the context of this research approach the participant recounts an experience, and it is the responsibility of the researcher to interrogate and analyse the transcribed text and realise an interpretation of the experience (McConnell-Henry, Chapman, & Francis, 2009), outcomes which the researcher endeavoured to achieve in the conduct of this study.

Heidegger developed the 'hermeneutic circle' as a way of illustrating how interpretative understanding is reached (Blattner, 2006, p.22). The metaphor of a circle guides the researcher's enquiries of analysis (Wrathall, 2005). A tenet of the hermeneutic circle is that it is impossible to understand the whole without understanding the parts that make up the whole of being: essentially, even small amounts of data require consideration of meaning in relation to the larger amounts and vice versa (Cohen *et al*., 2000). The concept of the hermeneutic circle that Heidegger envisioned is that the parts are the individual and the whole relates to the reality of the experience of everyday existence (Moran, 2000). Prior to entering the circle the researcher's prior knowledge of understanding is considered to enable them to remain focused on the phenomena under investigation (Blattner, 2006). To ensure that acknowledging these presuppositions does not inhibit understanding, proponents of the hermeneutic circle advocate that the researcher emerges with the data, and links back to his or her own 'reference system', and that this process should be ongoing to create a 'new reference system' of knowledge and meaning (Alvesson & Skoldberg, 2009, p.120). Proponents of the hermeneutic circle advocate this back and forth process between the researcher's own understanding, the research topic and the context of the study to develop shared meanings by deconstructing and then reconstructing the transcribed text (Willis, 2007).

As previously stated, hermeneutics is central to Heidegger's development of phenomenology and Hans-Georg Gadamer, who was mentored by Heidegger (Moran, 2000), developed phenomenological enquiry further by reconceptualising and bringing the 'hermeneutic circle' to public attention (Annells, 1996). He believed

that understanding and interpretation are inextricably linked (Gadamer, 1989) and supposed that interpretation was an iterative process, and thus he provided a 'general theory of human understanding' to further develop phenomenology (Charalambous *et al*., 2008, p.638). Heidegger and Gadamer agree on the focus of hermeneutic phenomenology being that understanding can only be achieved through interpretation, and that it has to be situated with both the participants' and researcher's experiences and perceptions (Finlay, 2009). The hermeneutic circle therefore provides a strategy for data analysis following interpretative phenomenology and underpins Smith *et al*.'s (2009) rationale for the adoption of this iterative process for IPA. The researcher acknowledges and understands that this will be an essential requirement to ensure an in-depth analysis of the study's findings.

3.4 Interpretative Phenomenological Analysis

IPA is an adaptation of phenomenology into a research approach (Larkin, Watts, & Clifton, 2006). 'IPA researchers are especially interested in what happens when the everyday flow of lived experience takes on a particular significance for people' (Smith *et al*., 2009, p.1). There is a clear emphasis on the importance of the participants' individual accounts, which is in line with the phenomenological, hermeneutic and idiographic concepts and theoretical foundations of this approach (Shinebourne, 2011; Smith *et al*., 2009). Individual accounts are interpreted and meaning is offered within the context of their experiences (Larkin *et al*., 2006).

IPA is essentially an interpretative approach, but it also draws on descriptive phenomenology (Smith & Osborn, 2003) in allowing the participants to give a credible account of a phenomenon from their perspective. By following this approach an explanation as well as a description of an experience can be achieved (Quinn & Clare, 2008). It also has the facility to provide a conceptual level of interpretation, provided researchers do not just summarise the participants' experiences and concerns (Larkin *et al*., 2006).

This research approach was initially developed by Jonathan Smith, a Professor of Psychology, as an approach to experiential qualitative psychology (Smith, 1996) and is becoming more utilised in nursing research (Pringle, Drummond, McLafferty, & Hendry, 2011), though not midwifery. Though its development has been considered to be swift, it is now deemed to be a dynamic and imaginative research approach (Smith, Flowers, & Osborn, 1997; Smith & Osborn, 2003; Larkin *et al.*, 2006; Smith *et al*., 2009). Smith and colleagues determined a qualitative research method that could be used to explore people's perceptions of health, but that still

considered the individual (Giles, 2002). Its early application was in health psychology, and this has now spread to clinical, counselling, social and educational psychology. It is a research methodology that can be used by other disciplines apart from psychology that are interested in psychological questions (Smith *et al*., 2009), and is being promoted as a suitable research methodology for nursing research to gain a better understanding of how illness can affect health behaviour and lifestyles, and to explore healthcare (Pringle *et al*., 2011).

What the participant has to say has a central focus in an IPA study, which suits this midwifery research in that it is person-centred and holistic in its outlook (Roberts, 2013). This approach to phenomenological investigation best fits the key remit of this study and the researcher's view on gathering information from the participants' perspectives.

3.4.1 IPA and hermeneutics

IPA is a qualitative dynamic research process which allows a subjective exploration of a lived experience from a participant's perspective, and is therefore phenomenological in essence (Smith, 1996). From the perspective of phenomenology it is derived from phenomenological hermeneutics, because it advocates that an interpretation of an experience is accessible only by the process of both participant and researcher involvement (Smith, 2010). There has, however, been criticism that IPA does not have its foundation in philosophical phenomenology (Giorgi, 2010). In its defence, the development of this approach has been clearly referenced by Smith and colleagues, with established links demonstrating that IPA is theoretically underpinned by phenomenology and more specifically hermeneutics (Smith, 2007; Smith *et al.*, 2009; Smith, 2010). Shinebourne (2011, p.21) would concur, stating that IPA is congruent both with phenomenology and hermeneutics by being concerned with determining an understanding of 'what it is like from the point of view of the participants'.

The methodology of IPA combines 'empathetic hermeneutics with questioning hermeneutics': essentially, meaning is not just given to the experience by the participants, but that the researcher seeks to understand what it means for the participants' – this is 'sense-making by both participant and researcher' (Smith & Osborn, 2003, p.52). The researcher is therefore central to this approach in both the conduct of analysis and in attaching meaning to the experiences of the participants, which is a key concept that the researcher wants to adopt for this study.

According to Aisbett (2006, p.53), what makes IPA such a versatile tool for health research is its focus on gaining a more in-depth and richer understanding of

the participants' experiences of an event or phenomena: 'while the participant is trying to make sense of the world around them, the researcher is trying to make sense of the participant trying to make sense of the world around them'. This two stage interpretation process is referred to as a 'double hermeneutic' by Smith *et al*. (2009, p.3), to determine meaning in human behaviour (Willis, 2007). The principles of the hermeneutic circle as discussed previously are therefore adhered to in this research approach to provide a conceptual meaning attached to the experience of the research participants fitting the remit of the requirements for how the researcher aims to conduct the study.

3.4.2 Criticism and defence of IPA

Giorgi (2010, p.4) claims that IPA becomes prescriptive merely by mentioning 'suggestions' on the methodology, which is at odds with Smith and Osborn (2003, p.66) who do not want IPA viewed as a 'prescriptive methodology'. Smith (2010) argues against Giorgi's viewpoint by stating that good practice guidance on IPA methodology has been produced, however, it is then dependent on how the researcher interprets this guidance in the conduct of their study and therefore there is flexibility in this approach. Giorgi (2010, p.5) has also disapproved of this tenet of flexibility regarding the conduct of an IPA study by contending that it is a contradiction to give 'prescriptions' and yet claim 'total freedom' with this approach. Smith (2010) has defended IPA by stating that total freedom is not advocated and that there are constraints with any research approach, including IPA; however, IPA as a methodology balances both flexible and structured approaches to the conduct of research. Larkin *et al*. (2006) also contend that flexibility in IPA should not be erroneously supposed to lack rigour.

A potential limitation of IPA is that its findings cannot be generalised to contribute to theory because of its advocated small sample size (Smith *et al*., 2009), however, Pringle *et al*. (2011) argue that it can both influence and contribute to theory generation. Smith and colleagues (Smith *et al*., 2009, p.38) concur by stating that the remit of IPA is not to generalise its findings but to achieve 'theoretical transferability'. A small sample size, rather than diminishing IPA allows for richer, more in-depth analysis and explorations and permits a detailed analysis of each participant's experience (Smith, 2010). Reid, Flowers, and Larkin (2005) contend this can lead to useful insights and this therefore could illuminate midwives' and student midwives' meaningful practice experiences of caring for women with raised BMIs during maternity care delivery.

3.5 Rationale for the Methodology

There are a number of factors that determined the rationale for choosing and adopting IPA for this study, not least that IPA has been developed as a methodology of research that clearly guides the researcher yet offers flexibility (Smith *et al.*, 2009). Conversely, previous phenomenological research approaches have been developed more in line with philosophy rather than as research methodologies (Snow, 2009).

Other relevant factors are that IPA focuses on meaning and sense making within the social and cultural contexts of the phenomenon to be explored, is concerned with participants' experiences of a relationship, process or event, and places the researcher's interpretation of these experiences into a conceptual framework of meaning and understanding (Larkin *et al*., 2006). These concepts – of IPA determining an interpretation, but also drawing on the description of the phenomenon from the perspective of the participants, with a related understanding from the investigator – strongly resonated with the researcher, and allow an explanation and a description of what it means to midwives and student midwives to care for this client group to be derived. Having experience of this client group, the researcher can relate to the midwives' and student midwives' likely experiences which is an essential component of this research approach (Smith *et al*., 2009).

A further motivation for adopting the IPA approach is that its use in midwifery research had not been evident at the commencement of the study in 2010, and therefore the researcher considered it both original and innovative. This was particularly so, given that it had been taught as an appropriate research methodology for the use of doctors and nurses since 2008 (Biggerstaff & Thompson, 2008) and even prior to this for psychologists nearly a decade earlier by the utilisation of Smith and colleagues' earlier work in this area (Smith, Jarman, & Osborne, 1999).

Interestingly, it was only as recently as 2012 that it emerged in the midwifery arena, when Walsh-Gallagher, Sinclair and McConkey (2012) produced a study exploring disabled women's experiences of pregnancy, childbirth and motherhood. At this time the majority of IPA research regarding childbirth issues was being conducted by psychologists, such as *The legacy of a self-reported negative birth experience* (Mercer, Green-Jervis, & Brannigan, 2012, p.717) and *Mothers' breastfeeding experiences and implications for professional practice* (Guyer, Millward, & Berger, 2012, p.724). Both studies followed Smith and Osborn's (2008) instructive chapter on utilising IPA as a research method in psychology. However, Mercer *et al*. (2012) provided a more robust demonstration of how an IPA study

should be conducted, with particular reference to the process of data analysis by discussing the concept of devising emergent themes and the creation of super-ordinate themes, thus providing a meaningful interpretation of the participants' experiences. This confirmed to the researcher that IPA was emerging as an invaluable research approach that could be utilised by midwifery researchers (Roberts, 2013).

This emergence of IPA into midwifery journal articles written by psychologists prompted the researcher to write an article on *Understanding the research methodology of interpretative phenomenological analysis* (Roberts, 2013, p.215), to enhance my understanding of this dynamic and imaginative research approach and to consider its application to this study. It is believed that an IPA study when carried out with care and commitment can produce very powerful findings (Larkin *et al*., 2006).

The use of IPA in midwifery research has therefore been a slow evolution, becoming a whole research approach and not just a data analysis method as Walsh-Gallagher *et al*. (2012) and subsequently Singleton and Furber (2014) had utilised it. Singleton and Furber (2014) examined midwives' experiences of providing care to women with a BMI ≥30kg/m^2 in labour; they used Heideggerian phenomenology and IPA for data analysis, whereas Walsh-Gallagher *et al*. (2012) employed descriptive phenomenology and IPA for data analysis, which could be construed as not meeting the remit of an interpretative phenomenological data analysis framework by applying it to a descriptive study (Roberts, 2013).

It is only in recent times, however, that IPA has been recommended to be utilised in midwifery research as a methodology in itself and not just for data analysis (Roberts, 2013). It is interesting to note that no reference was made to the book by Jonathan Smith and colleagues (Smith *et al*., 2009) within the article supporting Singleton and Furber's (2014) utilisation of IPA. The book is highly informative on the application of this methodology to healthcare research (Roberts, 2013) and would have added to the presentation of the findings.

IPA has since then been identified as being utilised entirely as a research methodology, by Knight-Agarwal *et al.* (2014) to explore Australian midwives and obstetricians' views about providing antenatal care to obese women, and by Knight-Agarwal *et al.* (2016) to investigate obese Australian women's experiences of antenatal care. Both studies followed the Smith *et al.* (2009) approach to IPA, acknowledging in the latter study the use of the 'double hermeneutic' and that 'the participants make meaning of their world', with the researcher attempting to make sense of the 'participants meaning making' (Knight-Agarwal *et al*., 2016, p.191). The

researcher contends that the use of IPA by Knight-Agarwal *et al.* (2014; 2016) as a research design methodology further supports its application as the methodology of choice for this current study, as both earlier studies realised a meaningful interpretation of findings from the participants' perspectives.

Data collection methods for IPA require considered deliberation to ensure that the aims of IPA are met (Smith *et al.,* 2009). Knight-Agarwal *et al*. (2014) conducted three focus groups separately for hospital midwives, continuity of care midwives and obstetricians. However, Smith *et al*. (2009, p.71) advocate caution when utilising this data collection approach for this research methodology. They advise that careful consideration should be given to the study's research question as the intention of data collection should be the production of 'experiential narratives', and large focus groups can instead give rise to views and opinions. Knight-Agarwal *et al*. (2016) utilised semi-structured interviews (Smith *et al*., 2009). All the data was collected via one-to-one interviews, which fits the remit of data collection for a qualitative study of this nature (Barbour, 2008).

It is interesting to note that IPA has gained impetus for its use within maternity care within the Australian setting and has been true to the research methodology that Smith *et al*. (2009) devised. This is further supported by Charlick, Pincombe, McKellar and Fielder's (2016) Australian article on the use of IPA in midwifery research. Charlick *et al*. (2016) expound the use of IPA by contending that it aligns with the philosophy of women-centred care and presents a methodological approach that enables the context of women's experiences of maternity care to be explored. The authors further suggest that resultant IPA studies could therefore make a positive improvement to the delivery of midwifery care. The tenet of the Charlick *et al*. (2016) article concurs with the researcher's methodological decisions to choose IPA, in that they advocate the use of the Smith *et al*. (2009) IPA research methodology. This involves deriving a research question to determine the meaning of an experience, establishing an homogeneous sample, collecting data by either in-depth or semi-structured interviews, and analysing data following an interpretative stance, from the creation of emergent themes to the development of super-ordinate themes and subsequent narrative accounts to realise meaningful findings within the context of the participants' sphere of practice (Charlick *et al.,* 2016). Of particular interest and with significant relevance to this present study, Charlick *et al*. (2016, p.214) contend that 'IPA is an ideal methodology to use for a doctoral study, particularly in a field such as midwifery'.

3.6 Reflexivity

Reflexivity is considered to be an essential component in ensuring that qualitative researchers ensure personal biases are acknowledged, to prevent judgements being made during the process of conducting a research study (Dowling, 2006). Jootun, McGhee and Marland (2009, p.46) contend that reflexivity was initially employed to 'separate the researcher from the research process, but has evolved as a process used to demonstrate the researcher's influence on the research process'. It is considered that self-awareness is key, with the researcher accepting the possible influences that they project onto the research, which may affect its outcome (Kingdon, 2005). Polit and Beck (2012) contend that it is not just in determining the findings of a study that reflexivity should be practised by a researcher, but also during data collection. Taking these viewpoints on board I was determined to practise the concept of reflexivity throughout the conduct of the study, from the design stage through to the consideration of the findings.

Whittaker and Williamson (2011) believe that reflexivity is not just about removing personal biases but more about acknowledging our backgrounds, beliefs and values, and the valuable contribution that they bring to the research process. This is supported by Clancy (2013, p.16) who suggests that it is important for researchers conducting an IPA study to be aware of their 'positionality in their research, which involves an often difficult analysis of personal values, beliefs, feelings, motivations, role, culture, ethnicity, age, gender and other factors such as personality and mood'. This then allows the researchers to become self-aware and to understand themselves and their research more completely (Clancy, 2013). Parahoo (2014) suggests that it can be difficult to practise reflexivity in that it is not always possible to be self-aware of pre-conceived ideas, whereas Lambert, Jomeen and McSherry (2010) believe that reflexivity plays a role in helping researchers to recognise the situational and personal influences that impact on their research studies. It has also been argued that reflexivity has the facility to encourage excessive self-analysis to the detriment of the topic under study (Finlay, 2002), whereas Alvesson and Skoldberg (2009) contend that it encourages critical self-reflection and this therefore advantages qualitative researchers in their ability to produce credible findings.

Some would suggest that reflexivity encourages objectivity (Jootun *et al*., 2009), but conversely it could also be argued that this is not the purpose of reflexivity and as such that qualitative researchers should embrace subjectivity rather than objectivity (Rees, 2011) to realise the truth of their research endeavours. Jootun *et al*. (2009) argue that researchers should ignore any pre-conceived knowledge of the

topic under investigation, and suggest that bracketing as used for descriptive phenomenology and which allows for the researcher to put aside assumptions is a good process to consider following to achieve reflexivity. Gadamer (1989), however, argues that subjectivity and personal involvement by researchers, and acknowledgement of prior knowledge, enhances and does not detract from hermeneutic research, though he concedes that previous knowledge should be acknowledged. Gearing (2004, p.1435) concurs and suggests that 'reflexive bracketing' is more suitable for hermeneutic research, whereby researchers identify their presuppositions but do not bracket them. This is further supported by Denscombe (2003) who believes that researchers cannot divorce themselves from previous life experiences and the world which we inhabit. As the research adopted for this study is IPA which has its roots in phenomenological hermeneutics, this suggests that subjectivity is welcomed in this research approach (Wagstaff & Williams, 2014).

Dowling (2006, p.8) suggests that there are two reflexive perspectives for researchers to consider: 'personal and epistemological'. Personal reflexivity can be achieved by researchers discussing their potential biases with a research supervisor, whereas epistemological reflexivity encourages researchers to question their assumptions on their findings and the new knowledge that has been created (Dowling, 2006).

Walker, Read and Priest (2013) suggest that qualitative researchers who exercise reflexivity ensure best practice in the conduct of their research study, and propose an essential element of this is to keep a reflective diary. A reflective diary also allows researchers to use reason to focus on the emerging issues of the research, rather than to just rely on gathering and analysing the study's data (Willis, 2007). By using a reflective diary, researchers are also able to acknowledge their relationship to the participants and the subject under inquiry (Jootun *et al*., 2009).

It is suggested that reflexivity, rather than limiting bias, brings influences to the attention of researchers to enable them to be tackled and therefore adds credibility to the research findings (Clancy, 2013). Lambert *et al*. (2010) concur and further suggest it ultimately allows for a questioning approach by researchers, prompting them to consider their decisions and choices in terms of the methodology and research process itself. Reflexivity is a complex concept and can be a challenging enterprise for researchers (Dowling, 2006); therefore I will endeavour to adhere to its principles to acknowledge influences and therefore limit bias in this study.

3.6.1 Reflexivity and the design phase

Reflexivity will therefore be a continuous process during the conduct of a study of this type (Smith *et al*., 2009). My starting point was considering the application and adherence of reflexivity during the design phase of the study (Wagstaff & Williams, 2014). The topic of obesity and maternity care had ignited my imagination as a suitable area in which to conduct a research study, as in 2010 there was no midwifery research conducted in this area.

Contextual and personal experiences were contemplated and considered at this stage of the research process (Boeije, 2010). Contextual understanding and knowledge were further derived from writing chapter one, and therefore needed to be pondered upon in relation to my personal judgements of what was considered to be current practice for the participants in the study. In writing a personal reflective diary, I expressed my previous and current knowledge of practice (Butler-Kisber, 2010) of delivering maternity care to obese women. However, I had not practised as a midwife since 2004 and therefore did not have current experience of caring for women during this obesity epidemic, though I did detail an experience from practice from 20 years ago which still provided me with significant memories of caring for a morbidly obese woman during labour. By conveying this experience in writing, it helped to determine my previous knowledge and highlight areas of potential bias (Whittaker & Williamson, 2011). This experience from practice was also discussed with my principal supervisor in relation to adopting the most appropriate research methodology for the study (Butler-Kisber, 2010). I believed that an objective methodological stance would not have been a suitable perspective to adopt because of my previous experience as a midwife, and my supervisor concurred.

During the design phase of the study recruitment of the sample was also deliberated upon in relation to reflexivity in terms of not introducing bias (Wood & Ross-Kerr, 2011). Midwives were therefore deliberately not recruited from the Hospital Trust where I was actively engaged as an academic link lecturer for part 1 of the study. In part 2 student midwives were not recruited from years one and two of the pre-registration midwifery programme, as I had taught sessions for both cohorts on maternal obesity.

3.6.2 Reflexivity and the conduct of the study

During the process of conducting this research study, reflexivity was particularly strived for in data collection and analysis (Wood & Ross-Kerr, 2011). A reflective diary was kept into which areas of bias and influence were expressed, enabling me to become a reflexive researcher (Willis, 2007). During data collection previous

assumptions were held in check to allow the participants to express what it meant to them to care for this client group, without undue influence from myself. A low structured interview format was therefore adopted for this purpose in part 1 of the study, and a semi-structured format based upon the findings from part 1 informed the questions for part 2. I felt as a researcher that applying a low structured format particularly reinforced the concepts of IPA, the study focusing on what the participants had to say, rather than specifically what I wanted to know, and that this further aided the employment of reflexivity.

Data analysis followed two distinct pathways in an attempt to adhere to reflexivity principles: manual data analysis followed by use of NVivo 10 (a qualitative data management software package) (Bazeley & Jackson, 2013). The reciprocal arrangement of the 'double hermeneutic' to interpret the study's findings required my engagement in attaching meaning to what the participants had expressed in their interviews (Smith *et al.*, 2009, p.3). Adopting two strategies for data analysis, and by also listening to the audio-recordings of the (collected data) participants' voices, allowed me to thoroughly engage with the transcripts, realise the findings, question the findings and return to the study data to confirm them.

My reflective diary was very useful during this process to help position myself as the researcher in terms of the meaning of the findings and to help acknowledge and limit any bias that may have intruded from my own belief system regarding obesity care. I attempted to put aside my own experiences in this area of care, but also became conscious that unknown areas of the meaning of care particularly voiced by the midwifery participants were a surprise to me e.g. the promotion of normality. This then led me to question my ability to put aside assumptions, however this realisation did allow and ensure that I became more self-aware during this process. By interrogating my findings and the assumptions of what they meant (Smith *et al*., 2009), this ultimately ensured that reflexive research has been practised.

However, though my past experience and knowledge were integral and welcomed to help to interpret the study's findings, a researcher who was not part of the study agreed to analyse a selection of transcripts of her choice to help limit bias (Kahn, 2000), and my supervisors also scrutinised my process of analysis and the findings. Together with my own attempts to be a reflexive researcher, this added further scrutiny and credibility to the study's conduct and findings.

3.7 Ethical Considerations

Ethical considerations play an integral role in the conduct of a research study: by ensuring that research ethical principles are adhered to, the wellbeing of the

research participants is promoted and safeguarded (Coup & Schneider, 2007). This has particular significance for this study as it involves human subjects for which stringent ethical approval processes must be adhered to in accordance with the World Medical Association's Declaration of Helsinki in 1964, as amended in October 2008 (World Medical Association, 2010). This is also supported by the Nursing and Midwifery Council's code of professional conduct (NMC, 2015) and the Research Governance Framework (DH, 2005) which defines the principles for undertaking and disseminating good quality research. The overriding principle of conducting an ethical study is to cause no harm to the participants, therefore the researcher must weigh up the risk of non-maleficence as opposed to the beneficence of the conduct of the research to them (Griffiths, 2009). The researcher designed the study in accordance with this principle and also applied the essential tenets of ethical considerations during the conduct of this study, which can be found in table 3.2.

Table 3.2: Ethical considerations

1	Full disclosure of the details of the study.
2	The identification of the researcher and organisation.
3	The nature of the participation.
4	The right not to volunteer.
5	The right to withdraw at any time without any negative consequences.
6	The right to confidentiality.
7	The right of anonymity.
8	The opportunity to ask questions.
9	That they will not be coerced or pressurised.
(Sources: Haigh, 2008; Lindsay, 2007)	

Ethical approval and consent were sought from the Faculty's Research Ethics Committee for both parts 1 and 2 of the study; and for part 1 only, from the NHS Research Ethics Committee (NRES) by making an online application via the Integrated Research Access System (IRAS) (NRES, 2009), and from the research and development units and the heads of midwifery of the four Trusts identified for the sample settings. Before the study could commence approval had to be achieved from all of the above and table 3.3 demonstrates the lengthy timeline that this took. (Copies of the Faculty's Research Ethics Committee approval letters for both parts 1 and 2 of the study can be found in appendices 4 and 5a. Initially it had been decided to include midwifery lecturers in part 2 of the study, however, this would not have fitted the remit of the study. Therefore appendix 5b includes the aims of part 2 for the student midwives involvement as submitted to the Faculty's Ethics Committee. NRES approval can be found in appendix 6 and Research and Development Units

approval letters can be found in appendices 7, 8, 9 and 10.) From submission of IRAS, to attending a board meeting of the locally nominated NRES committee where the researcher had to defend the study, took six months. The research and development units all had different application processes and would not begin consideration of the researcher's applications until NRES approval had been gained. The four heads of midwifery were happy to give consent to recruit midwives from their Trusts once each had had been assured that their research and development unit had given consent. (Upon completion of all ethical approval processes, NRES no longer requires an application of ethical approval for NHS staff to be participants in a research study (NRES, 2011).)

Key to ensuring that the researcher's ethical approval applications were successful was to ensure that the invitation letters to join the study (appendices 11 and 12), the poster to advertise the study (appendix 13), information sheets about the study (appendices 14 and 15) and the consent forms to participate in the study (appendices 16 and 17) all met the ethical requirements of all the committees applied to, and that the ethical considerations found in table 3.2 were integrated within them.

Table 3.3: Ethical approval timeline

1st October 2010	Registered for MPhil
12th November 2010	1st application for part 1 – Faculty Research Ethics Committee approval granted
11th May 2011	National Research Ethics Service approval granted
23rd June 2011	Research & Development Unit approval granted: Site A
12th August 2011	Research & Development Unit approval granted: Site B
1st September 2011	Research & Development Unit approval granted: Site C
7th October 2011	Research & Development Unit approval granted: Site D
30th July 2013	2nd application for part 2 – Faculty Research Ethics Committee approval granted

Once ethical approval and consent were given to recruit the participants, recruitment for part 1 involved placing posters away from public view with letters of invitation attached, in the maternity units in the four Trusts identified. Part 2 involved placing a sign with information on it for the attention of third year midwifery students regarding a research study, and inviting them to help themselves to an envelope containing an invitation letter from the box attached to the sign; this was placed on a desk within the Faculty's administrative department. An email was sent to all twenty-three third year midwifery students by the department's administrator, inviting them to participate in the study. Potential participants subsequently contacted the

researcher; an information sheet was sent to them via email and it was emphasised to them that they had no obligation to participate in the study (Rebar, Gersch, Macnee, & McCabe, 2010). Potential participants contacted the researcher on receipt of the information sheet and agreed to participate. (Sample selection and data collection are discussed in chapter 4.)

The researcher had been concerned that during part 1 recruitment, midwives might be reluctant to participate because there was a clause in the consent form relating to unsafe midwifery practice. Essentially, the researcher had been apprehensive about what mechanisms should be put into place to protect the public and to ensure the researcher met professional obligations if unsafe practice was declared during data collection (Barbour, 2008), and to make certain that the participant was informed of and received appropriate supervisory support. The researcher in her role as a midwife has a legal requirement to report unsafe practice in accordance with the *Midwives' Rules and Standards* (NMC, 2012); however, in her role as a researcher this would breach confidentiality of the research participant (Blaxter *et al*., 2006). Therefore careful thought was given to how confidentiality could be maintained, but unsafe practice made known as part of the supervisory framework for midwives (NMC, 2009a; NMC, 2012). Reference was therefore made in the information sheet about the process to be followed should a disclosure of unsafe practice happen during data collection, and this was also stated on the consent form. The course of action would involve the researcher at the conclusion of the interview informing the participant if unsafe practice had been disclosed, and the participant would then contact her supervisor of midwives as agreed to in writing as part of the consent process. During data collection, however, no unsafe practices were disclosed.

Prior to data collection, informed consent was achieved both verbally and in writing before the commencement of the interviews (Polit & Beck, 2012). Participants were given a copy of the information sheet and given the opportunity to ask questions to clarify understanding before they completed the consent form (Rees, 2011). All participants willingly agreed to participate, and were assured that anonymity and confidentiality would be maintained, and that codes would be applied to the transcripts (Blaxter *et al*., 2006) and to any quotes used in disseminating the research findings (this was stated in the consent form). The participants were also guaranteed the safe storage of their details and the data generated from the study (locked filing cabinet in the researcher's office for which only the researcher has a key) (Griffiths, 2009).

Ethical consideration of causing no harm to participants during data collection was also deliberated upon as interviewees can potentially become agitated and distressed by re-living events during an interview, depending upon the subject matter (Steen and Roberts, 2011). As the researcher had experience of conducting a Husserlian phenomenological study previously with a vulnerable group of women (Mapp & Hudson, 2005), she felt equipped to conduct this type of research interview with midwives and student midwives, who are not perceived as a vulnerable group. However, strategies to deal with the situation if participants became upset or distressed were considered: these were to halt the interview and ascertain if the participants wanted to continue or conclude the interview, without the researcher being coercive, but demonstrating the attributes of a 'concerned individual' (Barbour, 2008), and to bring the interview to a timely close if the latter wish was expressed, so as not to prolong the participant's distress.

As the researcher would be unaware of what experiences the midwives and student midwives had in caring for women with raised BMIs during the childbirth continuum, and the distress it might cause them to verbalise these experiences, psychological support following the interview process was offered to minimise harm (Rees, 2011). The form that this took was the availability of a debriefing/counselling session (Barbour, 2008) with a colleague, though none of the participants took up this offer.

The researcher believes that this study has upheld the research ethical principles and considerations required to ensure quality research practice as stipulated by the Research Governance Framework (DH, 2005).

Chapter 4: Research Design and Methods

4.1 Introduction

This chapter will discuss the study design and methods. The research question, aims and objectives of the study are presented. A consideration of design issues related to the study and discussion of the methods utilised will be conducted, and this chapter will conclude with an exploration of the application of rigour to this study.

4.2 Research Question

What does it mean to midwives and student midwives on the point of qualification to care for women with a BMI ≥30kg/m^2 during the childbirth continuum? To clarify this the research will explore the significance that the research participants, both midwives and student midwives, attach to caring for this client group during antenatal, intrapartum or postnatal care delivery. To make it clear: student midwives on the point of qualification means that they were in their last month of their three year programme of study to achieve a qualification of BSc (Hons) Midwifery, enabling them to become a registered midwife (NMC, 2012). The client group are women who have booked their pregnancy with a diagnosis of obesity (represented as BMI ≥30kg/m^2 in this thesis).

4.3 Aim and Objectives

Aim

- To determine what it means to midwives and student midwives on the point of qualification to care for women with a BMI ≥30kg/m^2 during the childbirth continuum.

Objectives

- To recruit to the study midwives and student midwives on the point of qualification who have cared for or are caring for women who booked their pregnancies with a BMI ≥30kg/m^2.
- To give a voice to midwives' and student midwives' experiences of caring for this group of women by collecting information from the perspectives of the participants, rather than that of the researcher.
- To disseminate the findings and to make recommendations for future midwifery training, practice and research**.**

4.4 Research Design

The overarching research design for this study utilised Interpretative Phenomenological Analysis, and followed the interpretivist paradigm and qualitative approach. Purposive sampling was utilised in parts 1 and 2 of this study. Data collection methods used were unstructured one-to-one interviews in part 1 and semi-structured one-to-one interviews in part 2. The data analysis method used was IPA as devised by Smith *et al*. (2009) and this was the overall research approach utilised for this study.

4.4.1 Design considerations: Sample

A purposive homogenous sample is necessary for IPA, so that themes can be realised from certain groups of people who have shared particular experiences and can offer an insight into these experiences (Quinn & Clare, 2008). A purposive sample is known to possess key characteristics (Denscombe, 2003) that will best inform the study (Rees, 2011). The sample can represent participants who are living the experience or those that have lived the experience in their past (Cohen, 2002). This type of sampling utilised for qualitative research comes under the term of non-probability sampling, which means that the chance of any individual being selected is not known (Moule & Hek, 2011). Its purpose is not to generalise the findings but to identify certain relevant issues (Parahoo, 2014). The researcher chose to utilise this type of sampling not merely because it is recommended by Smith *et al*. (2009) as the optimum type of sampling to use for an IPA study, but because it so clearly fitted the purpose of the aim of the study, in that the people in the sample were required to have cared for women with raised BMIs during the childbirth continuum.

In part 1 of this study, which explored what it means to midwives to care for women with raised BMIs during the childbirth continuum, a purposive sample was therefore adopted, and inclusion and exclusion criteria were applied. Inclusion and exclusion criteria are a required element for a research study to ensure that the correct sample has been selected (Steen & Roberts, 2011) in that the potential participants have experienced the phenomena under study (Mapp, 2008).

The inclusion criteria required midwives to have cared for women with BMIs ≥30kg/m^2 either antenatally, intrapartum or postnatally in the last three years and to be currently registered as midwives, which would in essence capture the continuum of care.

The exclusion criteria involved midwives who had not cared for women who had raised BMIs ≥30kg/m^2 during the childbirth continuum, and who were not currently practising in midwifery.

In part 2 of this study, which explored what it means to student midwives on the point of qualification to care for women with raised BMIs during the childbirth continuum, purposive sampling was again applied. Student midwives on the point of qualification were chosen as the second sample group for a number of reasons. This group were considered to be able to provide a unique perspective on the role of the midwife in providing care to this client group, and could potentially confirm the study's findings (Kumar, 2014) regarding the midwives' role. This sample group will allow for an exploration of the students' perception of their position and experiences of caring for women with raised BMIs (≥30kg/m^2). In the researcher's opinion, student midwives on the point of qualification can provide unique information, and are an intriguing group in which to explore what meaning they attach to their experiences of caring for this group of women. Of particular interest is that they are still students and therefore have a valid perspective of that role, but as they are on the point of qualification they also have an appreciation of what is required of them in their soon-to-be role as a newly qualified midwife (Van der Putten, 2008). Yet, though they may be on the cusp of having achieved all their competencies to qualify and achieve registration as a midwife, with the requirements to provide safe, competent and confident care (Butler, Fraser & Murphy, 2008), they remain legally unaccountable for the women and still require at least indirect supervision from their midwifery mentors (NMC, 2009c). This sample were also invited to participate because of their practice placement experience mirroring the midwife participants' environments. The literature searches performed in chapter 2 also support the addition of this sample group in endeavouring to provide original findings.

The inclusion criteria specifically required the students to have cared for women with BMIs ≥30kg/m^2 either antenatally, intrapartum or postnatally during their midwifery training (three years).

The exclusion criteria entailed 1st and 2nd year student midwives to whom the researcher had taught obesity care delivery in the maternity services, student midwives for whom the researcher was their personal academic tutor, and student midwives who had not cared for women with BMIs ≥30kg/m^2 either antenatally, intrapartum or postnatally during their midwifery training.

4.4.2 Sample size

Small sample sizes are utilised for this research approach: Smith *et al*. (2009) suggest that as the approach has evolved, sample sizes have become smaller to focus on examining each individual's experiences in depth. They advise a small sample can best meet the requirements of IPA, whereas a large sample can

overwhelm the researcher with data. For a student project a recommended sample is 3-6 participants, and 5-10 participants for a research study (Smith *et al*., 2009). This view is supported by small sample sizes being used in IPA studies (Wagstaff & Williams, 2014; Mercer *et al*., 2012; Guyer *et al*., 2012).

As the intention is not to generalise the findings in this study there was no requirement for large numbers of participants (Cohen, 2002). The sample size was driven by 'conceptual requirements' (Polit & Beck, 2012, p.516), i.e. what the participants had to say. It can be difficult to predict sample size using this research method (Smith *et al*., 2009), because sampling should continue until saturation is achieved, i.e. no new categories occur during data collection (Macnee, 2004). Some question whether saturation is even possible (Polit & Beck, 2012), and suggest that the diktat of sample size should be based upon the information to be gathered and access to the participants (Coyle, 2014). The principles the researcher therefore chose to adopt to achieve a flexible sample size design were dictated by the need for no less than five participants with the upper limit of the sample to be decided by saturation only.

4.4.3 Sample setting: Part 1

The most appropriate sample setting must be chosen when conducting this type of study to ensure the sample provides a rich source of information (Coyle, 2014), so that understanding can be enriched on the phenomena under study (Polit & Beck, 2012). Five different Hospital Trusts in the North of England were initially considered for recruitment; however, one was discounted because the researcher actively worked as an academic link lecturer at that site, and did not want any perception of exercising coercion or bias in this study (Rees, 2011). Four Hospital Trusts in the North of England were therefore chosen to recruit the sample from in part 1 of the study, in order to achieve a wide perspective of midwives' experience in caring for this client group. The following information identifies the study settings and sample size recruited.

Study setting A represents a medium sized regional maternity unit. The unit provides care for over 2,700 women per year from the surrounding urban and rural areas. There is a diversity of social class within the area and a very small but growing ethnic population. Two midwives were recruited from this setting.

Study setting B represents a medium sized regional maternity unit. The unit provides care for over 3,100 women per year from the surrounding urban area. There is a diversity of social class within the area and a small ethnic population. Eight midwives were recruited from this setting.

Study setting C represents a medium sized regional maternity unit. The unit provides care for over 3,200 women per year from the surrounding urban and rural areas. There is a diversity of social class within the area and a small but growing ethnic population. Six midwives were recruited from this setting.

Study setting D represents a small regional unit. The unit provides care for over 2,000 women per year from the surrounding rural area. There is a diversity of social class within the area and a limited ethnic population. One midwife was recruited from this setting (but did not participate in the study). (Birth rates for all four settings were retrieved for years 2011/12 (Birthchoice, 2013).

4.4.4 Recruitment: Part 1

Once all ethical processes had been achieved as discussed in chapter 3, recruitment commenced on 7th November, 2011. Five posters incorporating fifty letters of invitation to join the study (appendix 9) were placed in all four Hospital Trusts, in either offices or coffee rooms to capture the attention of midwives in settings away from public view following .

Contact was made by a midwife from one Trust suggesting that there were a number of midwives who were interested in participating, but who were requesting that interviews take place in the hospital setting. The researcher had not factored this into requesting Research and Development approval, as there was a nearby campus and it had been anticipated potential participants would be willing to attend there. The researcher was also very agreeable to conducting interviews in participants' own homes. A research passport for the initial Trust and subsequently for a second Trust, which did not have a campus nearby, was applied for to ensure that all potential recruits had a full range of options for the location of the interviews (Rugg & Petre, 2007) and both were granted by 6th January 2012.

A total of seventeen midwives from all four Trusts responded to the posters and requested further information, and an information sheet was emailed to each (appendix 14). The sample of seventeen were identified as possessing the characteristics to participate, though all were informed that there was a possibility of them not being required for the study once data saturation had been achieved (Barbour, 2008). The first participant who expressed a strong interest could not participate for a few months, but very much wanted to participate in the study. After the fifteenth midwife was interviewed it appeared that data saturation (Rees, 2011) had been achieved; however, needing confirmation, the researcher carried out one further interview which confirmed that point.

Data saturation in this instance referred to the point when the researcher, having performed data analysis on all previously collected data from the one-to-one interviews, had determined by participant sixteen that no new themes were forthcoming (Mason, 2010). This is also known as the 'saturation point', a confirmatory juncture in qualitative sampling to indicate that sampling should cease (Kumar, 2014, p.243). There is, however, debate in the literature about the concept of saturation (Mason, 2010): for instance, Smith *et al*. (2009, p.51) suggest that 'there is no right answer to the question of sample size' in an IPA study. As the researcher had previously utilised this notion of saturation in an earlier study (Mapp & Hudson, 2005), it was therefore applied in this study to assist in the final sample size selection.

Table 4.1: Participant details and sample setting for Part 1: Midwives

Participant	Current practice	Years qualified	Setting
1a Ava	Community midwife	10	A
2a Kyra	Antenatal clinic & peer support co-ordinator for breastfeeding	17	B
3a Cerys	Labour ward	14	B
4a Megan	Antenatal screening	9	B
5a Eve	Antenatal – high risk clinic	12	B
6a Fleur	Ward – antenatal & postnatal care	13	B
7a Grace	Community midwife	12	B
8a Ivy	Antenatal screening	18	B
9a Julie	Specialist midwifery role midwife	20	B
10a Kerry	Labour ward	4	C
11a Beth	Labour ward	4	C
12a Laura	Community midwife	3	C
13a Lily	Ward – antenatal & postnatal care	3	C
14a Mia	Community midwife	30	C
15a Tess	Labour ward	21	A
16a Zoe	Community midwife	12	C

The seventeenth potential participant had found it very difficult to find the time to participate, and upon mutual agreement it was therefore decided that she would withdraw from participating (recruitment sample D). Sixteen midwives therefore made up the sample in part 1 and they represented three of the study settings, A, B and C. Table 4.1 displays the participants' details which include their current practice setting and location, and how many years they have been qualified.

Prior to the one-to-one interviews, it was essential that informed consent was obtained from all the potential participants to meet the requirements of conducting

an ethical study (DH, 2005), as previously discussed in chapter 3 (3.7 Ethical considerations). Seeking informed written consent involved giving the participants another copy of the information sheet (appendix 14) in hard copy to read, time to digest the information and the opportunity to ask questions about the study (Curry & Nunez-Smith, 2015). Following this, the probable participants were given the consent form (appendix 16) to read and given time to ask questions about what they were agreeing to in participating in the study (Kumar, 2014). No issues were identified by the prospective participants, and all voluntary would-be participants signed the consent form without coercion from the researcher and were given a copy to keep (Moule & Hek, 2011).

4.4.5 Sample setting: Part 2

The sample in the second phase of the study needed to represent third year student midwives on the point of qualification who had cared for women with raised BMIs during their midwifery training. The decision to add another phase to the study was not made until a supervisory meeting at the end of May 2013. This entailed a very swift turnaround in achieving Faculty ethical approval, recruiting the sample and collecting data before the midwifery students completed their programme at the end of September 2013. A purposive sample was utilised (Smith & Osborn, 2003) and the setting was a University in the North of England where the students were undertaking their midwifery training. In terms of their practical experience, which comprised 50% of their midwifery course, one participant was recruited from setting A, one from setting B, two from setting C, one from setting D, and three from setting E, a medium sized maternity unit with an integrated midwifery-led unit.

Table 4.2: Participant details and sample setting for Part 2: Midwifery students on the point of qualification

Participant	Setting
1b Amy	B
2b Connie	E
3b Faye	C
4b Kate	D
5b Isabel	A
6b Lucy	E
7b Sian	C
8b Zara	E

Maternity unit E provides care for over 3, 200 women per year from the surrounding urban area. There is a diversity of social class within the area and a small ethnic population. It is important to note that setting E had not been used for the midwives' recruitment in part 1, as the researcher was actively working as a link lecturer at the hospital site at that time. However, for the majority of the third year student midwives' academic year the researcher was not operating as the academic link lecturer

for setting E, and was therefore not actively present on site. Table 4.2 displays the participants' details in terms of their practice setting.

4.4.6 Recruitment: Part 2

The Faculty's Research Ethics Committee granted approval on 30th July, 2013, and as the students were due to complete their midwifery programme at the end of September 2013, recruitment commenced immediately. Particular attention was paid not to introduce coercion (Parahoo, 2014) into recruiting this sample as the third year students had been taught by the researcher in her position as a midwifery lecturer. It was important therefore for the students to be aware that they were being invited and were volunteering to take part in the study, and were not being pressured to participate (Robson, 2011). Consequently, a day was identified at the beginning of August 2013, when the students would be attending and submitting an assignment in the Faculty's administrative department. A box with invitation letters (appendix 12) was therefore placed on the administrator's desk with a sign inviting third year midwifery students to take a letter. The invitation to participate was also emailed to all twenty-three third year midwifery students by the department's administrator the following day. Ten potential participants contacted the researcher for more information and an information sheet (appendix 15) was duly emailed to them all. One candidate withdrew because she was finding it difficult to find the time to participate owing to the tight turnaround, as data collection needed to be completed by 27th September 2013.

A further volunteer was going abroad on an elective placement and intended to participate on her return if data saturation had not been met (Rees, 2011). However, as data saturation (Mason, 2010) was met by candidate seven and confirmed by participant eight, the participation of the ninth volunteer was not required.

A time and venue were subsequently agreed for the interviews to take place. Before the one-to-one interviews started, the following procedures were achieved. The same processes were followed as for part 1 of the study to ensure written informed consent was obtained in accordance with ethical requirements (DH, 2005). The prospective participants were assured that their participation would be confidential and anonymous, they were informed of their right to withdraw from the study at any time, and permission was obtained to digitally record the interviews and to publish the results (Mapp, 2008). Each would-be participant was given a hard copy of the information sheet (appendix 15), which provided more details about the study's purpose, the benefits and risks of taking part, and details of who to contact if the participants had a complaint to make regarding the conduct of the study (Moule

& Hek, 2011). Once the participants had read the information sheet, an opportunity was given to ask any questions concerning the study so that clarification could be provided by the researcher. Following this, all the participants were provided with the consent form (appendix 17), and time was also given for them to absorb the information and to ask questions. All the participants who attended to take part in the study voluntarily signed the consent forms (Kumar, 2014) and were given a copy.

4.5 Design Considerations: Data Collection

The type of data collection method favoured for the IPA approach is usually semi-structured interviews (Barbour, 2008), because they allow the researcher to explore personal to general issues on the topic under investigation in a flexible way with the guidance of an interview schedule (Smith *et al*., 2009). Unstructured interviews are also advocated by Smith *et al*. (2009) for IPA data collection, to gain clarity and understanding from the perspectives of the participants, and not from the researcher's own perspective which a highly structured interview would potentially reveal (Steen & Roberts, 2011).

Other data collection methods such as focus groups and diaries have been used for this approach, but one-to-one interviews whereby questions are asked of the participant and further questions are modified in light of the participant's responses are preferred to facilitate the researcher and participant engaging in a dialogue (Smith, 2007). The researcher chose to use one-to-one interviews in both parts 1 and 2 of this study because this meets the concepts of IPA data collection (Smith *et al*., 2009), as there is a clear emphasis on the importance of the participants' individual accounts when following this approach (Roberts, 2013). Focus groups were also considered as they are now being advocated as a method to collect data utilising this approach (Palmer, Larkin, de Visser, & Fadden, 2010; Hawtin & Sullivan, 2011; Aubleeluck, Buchanan, & Stupple, 2012). A criticism of using focus groups is that the researcher has to ensure that consideration is given to the individual voice, so that it does not become eclipsed by the group, which has previously happened when using focus groups for IPA studies (Tomkins & Eatough, 2010). After due consideration focus groups were not chosen, due to the potential difficulties of collecting data using this method and because one-to-one interviews were thought to meet the integrated principles of IPA in this data collection approach (Palmer *et al*., 2010), whereby 'the participant talks and the researcher listens' (Smith *et al*., 2009, p.57).

Conducting an interview can be an intense and time consuming process, as the interviewer has to become immersed into understanding the situation from the participants' perspective (Gillham, 2005), which again fits the remit of the IPA approach to collecting data. Still, the distinct advantage to using interviews is that they draw from the interviewee a vivid picture of the experience which leads to understanding of shared meanings (Sorrell & Redmond, 1995). This fulfils the aim of IPA, which is to interpret peoples' experiences of phenomena and how they understand it. This can only be achieved if the participants are not influenced by the researcher.

Prior to all interviews being digitally recorded in this study, a social conversation aimed at creating a relaxed and trusting atmosphere was strived for to put the participants at ease (Mapp, 2008). Next the researcher suggested to all interviewees that they take a few moments to focus on the experience fully, prior to the start of the interviews as suggested by Moustakas (1994).

4.5.1 Data collection: Part 1

It is suggested that an interview schedule is required to guide researchers, but they must be wary of planning to ask too many questions and using too structured a format because participants may be less forthcoming in their responses; a flexible approach is therefore advocated (Pringle *et al*., 2011). Because of this, and to collect data from the participants' perspectives with no undue influence from the researcher, unstructured one-to-one in-depth interviews were chosen as the data collection method in part 1 of the study. One question was asked of all the participants in part 1: '**Please tell me what it means to you to care for women either antenatally, intrapartum or postnatally with BMIs ≥30kg/m^2?**' This meets the principle of conducting an unstructured IPA interview, whereby one question is asked and 'how the interview unfolds will then depend on how the participant answers this first question' (Smith *et al*., 2009, p.69). Reflexivity was strived for in that no assumptions were made by the researcher (Kingdon, 2005) about the participants' potential responses, as discussed in chapter 3. The researcher did not guide responses during the interview and the participants identified the areas of the topic they wished to express. This was a very important and crucial aspect of the research design for the study, namely that the participants in the first phase of data collection had a voice, shaped the study's findings and gave meaning to what it is to care for women with raised BMIs during the childbirth continuum. Essentially, this data collection process aimed to attempt to 'implement IPA's inductive epistemology

to the fullest extent' (Smith *et al*., 2009, p.70), a participant-centred approach to realising new information.

All interviews were digitally recorded with consent (Rees, 2011). Participants were offered a choice of locations for the interviews to take place (Mapp, 2008). Out of the sixteen midwives who participated, two were interviewed in their own homes, eight were interviewed in a hospital setting (in a private room), and the remaining six were interviewed at three different campus settings (in private rooms). The length of the interview was guided by saturation, e.g. when no new information was forthcoming (Cohen, 2002). The interview lengths ranged from 30 minutes to 70 minutes. The shorter interview lengths were from the eight midwives, who were interviewed in their own hospital setting; and though the interviews were shorter, the midwives appeared to have considered what they were going to say and spoke at speed. The longest interview was in the participant's home, suggesting participants feel under pressure in a hospital setting and the optimum location would be their homes, which Smith *et al*. (2009) concur with by stating that participants are most comfortable in familiar surroundings. Data collection commenced on 7th January 2012 and was completed by 30th March 2012.

Though the plan to collect data from this group was to use unstructured interviews, probes were prepared to give confidence to the researcher conducting the interview. Gillham (2005, p.32) recommends the use of probes as a 'form of responsive encouragement; to help participants expand or clarify or develop their account'. One example is 'I'm not sure I've quite got that' (Gillham, 2005, p.33), so the interviewee clarifies or explains or expands on what they are describing from their perspective. Using phrases such as 'take your time' can reassure participants and aid the flow of the interview (Jones, 2004, p.43). Gillham's (2005) probes were not required in this sense, but repetition of the question was utilised by the researcher if the respondents appeared to be faltering in their focus.

4.5.2 Data collection: Part 2

Part 2 involved collecting data from 3rd year student midwives on the point of qualification using semi-structured interviews to allow flexibility (Smith *et al*., 2009) if a topic was not raised which was discovered in part 1 of the study. The students were all asked the same question: **'Please tell me what it means to you to care for women either antenatally, intrapartum or postnatally with BMIs ≥30kg/m^2?**' If a student appeared to be 'drying up', another question was asked but with the same intended meaning: '**What does it mean to you to care for women with raised BMIs (≥30kg/m^2) during the childbirth continuum?**' The intention of using

semi-structured interviews was not to lead the participant in their answers, but to discover if there was a difference in what it meant to the students to care for this client group.

Table 4.3 gives an outline of the interview schedule which was produced in order to prompt the researcher to ensure that all the areas for investigation had been explored. Only one prompt of, '**How does it make you feel to arrive on a labour ward shift and to be allocated to care for a client with a raised BMI?**' was used by the researcher, as none of the students mentioned the 'sinking feeling' or 'hard work', issues which the midwives had emphasised in their interviews. This question was posed to the students in a scenario format so as not to influence their answers.

One question that was asked of the students which differed to the unstructured interview format of the midwife interviews was, '**Do you feel prepared by your training to care for this client group?**' This question was added for four reasons, principally that the findings realised in part 1 of the study identified the difficulties that midwives had encountered in caring for this client group, that in the midst of an obesity epidemic there is a rapidly changing landscape of the maternity population in the delivery of midwifery care, and that the shortest time that participants had been qualified in part 1 was three years. From the researcher's perspective it also provided an opportunity to seek confirmation that present training methods are adequate.

Table 4.3: Interview schedule for part 2: 3rd year student midwives

Question 1 **Prompt**	Please tell me what it means to you to care for women either antenatally, intrapartum or postnatally with BMIs ≥30kg/m^2? What does it mean to you to care for women with raised BMIs (≥30kg/m^2) during the childbirth continuum?
Super-ordinate theme prompts	
• **Catch 22**	How have you found communication with this client group?
• **Size matters**	Does size matter in caring for this client group?
• **Negative impact**	How does it make you feel to arrive on a labour ward shift and to be allocated to care for a client with a raised BMI?
• **That sinking feeling**	How does it make you feel to arrive on a labour ward shift and to be allocated to care for a client with a raised BMI?
• **Caring against all odds**	Do you think that you can promote normality with this client group?
Question 2	Do you feel prepared by your training to care for this client group?

The students were offered a choice of locations for the interview setting, but all chose the campus site of their training for convenience and the interviews were conducted in a private office. All the interviews were digitally recorded with consent; audio-recording interviews is considered to be the optimum choice for gathering information during an interview (Steen & Roberts, 2011), and to provide a rich source of data which can be analysed after the interview. Nuances of description may be missed if the interviewer is handwriting the notes of the interview whilst it is occurring (Mapp, 2008). In addition, Robinson (2006) suggests that the researcher should have the facility to make notes once the recording has finished, because at this time it is not unusual for participants to provide further data. For all interviews in both parts 1 and 2 of the study, the researcher had available a book and pen with which these comments were recorded. Initial impressions about what the participants were trying to express and convey were also noted post-interview when the participant had left the room. The length of the interviews ranged from 25 minutes to 60 minutes. The students did not appear to be as relaxed as the midwives about being recorded, and did express comments once the recordings had stopped. Data collection commenced on 16th August 2013 and was completed by 20th September 2013.

4.6 Design Considerations: Data Analysis

It is suggested that IPA data analysis should not be viewed as a 'prescriptive methodology', as there is no 'right or wrong way' to perform data analysis utilising this approach (Smith *et al*., 2009, p.80). However, a broad guidance in conducting data analysis is proposed (Smith *et al*., 2009), incorporating the flexibility of being able to return to the data to focus on meanings throughout the process of analysis (Smith & Osborn, 2003). Data analysis utilising this approach goes beyond capturing just a description of experiences, but initiates an understanding of those experiences (Larkin *et al*., 2006), by engaging in a detailed analysis of each interview to determine shared meanings (Shinebourne, 2011). Any interpretation of the data is based solely on what the participants have expressed during their interviews, and the role of the researcher is to endeavour 'to make sense of the participants trying to make sense of what is happening to them', therefore following the process of 'double hermeneutics' (Smith *et al*., 2009, p.3). This hermeneutic endeavour by the researcher is ultimately aiming to realise the meanings attached to these experiences. The researcher therefore engaged with the interview transcripts to identify themes and achieve an interpretation of the meaning of the participants' experiences (Quinn & Clare, 2008) within the context of their world, their working

environment (Larkin *et al*., 2006), providing maternity care to women with raised BMIs.

Data analysis utilising IPA commenced during the interview process, whereby the intention of the researcher was to initiate and affix meaning to what was being said by the participants (Smith *et al*., 2009), as opposed to attempting to 'fit a pre-existing theoretical viewpoint' (Smith, 1999, p.285) on to the participants' accounts. This initial assessment and impression of what the participants had expressed during their interview was handwritten in the researcher's notebook as soon as the interview had been completed. Following interviews held in the participants' own homes these notes were made in the researcher's car.

The flexible process of data analysis as advocated by Smith *et al*. (2009) for larger sample sizes was followed. This meant that a thematic analysis collectively representing the two different groups for part 1 and part 2 of the study was performed, rather than a case study approach, which would be the idiographic representation of what it meant to each individual to care for women with BMIs ≥30kg/m^2 during the childbirth continuum (Larkin *et al*., 2006). All the interviews in both parts 1 and 2 of the study had been digitally recorded with consent, and were transcribed verbatim (Blaxter *et al*., 2006). The stages of data analysis required the researcher to engage with the interview transcripts, 'reading and re-reading' them in step 1 of the data analysis process as advocated by Smith *et al*. (2009, p.82).

Step 2 involved 'initial noting', a manual task which involved 'exploratory commenting' to determine similarities, differences or connections within the texts and annotating them as such (Smith *et al.*, 2009, p.83). Essentially, the data was systematically interrogated so that rigorous explanations (Barbour, 2008) of what it meant to the participants to care for this client group could be achieved. This was a lengthy and complex process, and the researcher worked with both the transcribed texts and verbal recordings of the interviews to become immersed in attaching meaning to what the participants had verbalised (Boeiji, 2010).

Appendix 18 provides an example of a transcript with manual initial noting and annotations.

This immersion with both the texts and recordings of the interviews produced meaningful information, which was represented by the exemplar quotes (Black, 2006) realised from this stage of analysis (found in chapters 5 and 6), therefore initiating a construct for assigning meaning for both sets of participants.

Step 3 concerned 'developing emergent themes', essentially fragmenting the transcripts into a thematic analysis by corralling the 'initial noting', which had become a large data set for both parts 1 and 2 of the study, into sense-making units

(Smith *et al*., 2009, p.91). Essentially, the researcher was considering the smallest units of data in terms of the larger data sets (Cohen *et al*., 2000). This was commenced manually. However, as the researcher became more familiar and confident with the use of NVivo 10, this was utilised to manage the collected data (Bazeley & Jackson, 2013) and to confirm the emergent themes. In-depth reading of the transcripts by the researcher, corroborating initial themes and performing data reduction with the aid of NVivo 10, resulted in 21 themes being identified by 19th July, 2012 (appendix 20).

As previously discussed under recruitment of the participants, the concept of data saturation was followed to justify ceasing sampling (Mason, 2010). In these circumstances it provided a rationale during the process of data analysis that when no new themes were produced (Kumar, 2014), the conclusion was that saturation of the data had been achieved and therefore no further data collection transpired (Curry & Nunez, 2015).

Like part 1, part 2 followed the same processes for data analysis and by 20th December 2013, 21 themes had resulted; however, further reduction of the themes did occur during the writing-up stage of the analysis. This resulted in 20 themes for part 2 being realised (appendix 21). The theme of 'Students are surprised and shocked at the size of the women' was amalgamated with the theme 'Size of woman' which strengthens this theme.

The emergent themes for the whole groups of participants were allocated to 'nodes' as this is how themes are represented by NVivo 10 (Bazeley & Jackson, 2013). Smith *et al*. (2009) suggest that emergent themes can be created in word-processed documents by compiling the extracts from the transcripts; the researcher, however, found the NVivo 10 software package user-friendly in enabling straightforward management of the data sets.

Step 4 entailed 'searching for connections across the emergent themes'. Smith *et al*. (2009, p.92) suggest that the themes be listed chronologically as they occur in the transcribed texts, but also state that researchers can be innovative and not too prescriptive. NVivo 10 produced the 'nodes' alphabetically, and the researcher printed off all the themes which had been created. Next, the researcher read the abstracted comments from the participants, which had been created into themes (nodes), endeavouring to search for connections between the themes to create super-ordinate themes. Super-ordinate themes represent the next step in analysis by contextualising and providing an overarching concept to encapsulate the emergent themes.

Appendix 19 provides an example of how the data was managed in terms of collating information for an emergent theme (node) using NVivo 10. The emergent theme of 'promotes normality' from part 2 of the study was chosen to illustrate the process due to word count considerations, as it had the least amount of text for the quotes within the node. The researcher, having read all the emergent themes, then sought connections between them. Each theme was then grouped and categorised with other themes to create an overall intended meaning for the cluster. In this example, the emergent theme of 'promotes normality', together with the emergent themes of 'non-judgemental, aims not to discriminate, treats everyone the same' and 'medicalised and high risk', were determined to create the super-ordinate theme of 'normalising the risk'. This illustrated to the researcher the midwifery students' desire to provide non-judgemental care in promoting normality to a defined high risk and potentially medicalised group of women (chapter 6, section 6.5).

The creation of the super-ordinate themes should also be representative of the participants to ensure credibility (Smith *et al*., 2009). The researcher chose in parts 1 and 2 of this study to create five super-ordinate themes for part 1 and five super-ordinate themes for part 2, by linking the emergent themes to an over-arching premise in support of generating meaningful subsets of the participants' expressed perceptions of caring for this client group. Two tables incorporating the super-ordinate themes and their relevant emergent themes can be found in chapter 5 to represent the process of data analysis and findings for part 1, and in chapter 6 for part 2 of the study (tables 5.1 and 6.1).

Metaphors were chosen to name the super-ordinate themes, representing the emergent themes within the overarching themes and encapsulating what they represented to the researcher in terms of meaning (Smith *et al*., 2009). The use of metaphors is supported by Carpenter (2008), who believes that they can illuminate the intended research message, and by Charlicke *et al*. (2016) who contend they are integral to producing the findings for an IPA study. An explanation for the application of the chosen metaphors is given under the introduction of each super-ordinate theme in chapters 5 (tables 5.2. 5.3, 5.4, 5.5, 5.6) and 6 (tables 6.2, 6.3, 6.4, 6.5, 6.6). Chapters 5 and 6 also provide the findings of the study in narrative accounts under each emergent theme.

The term 'numeration' is used by Smith *et al*. (2009, p.98) to determine how important the theme is to the individual participant by using the frequency with which it is mentioned during the interview. Appendices 20 and 21 demonstrate this concept for both groups of participants (Smith *et al*., 2009). The researcher in this instance was also seeking to interpret the information to establish how important it is to the

research by realising how many participants have expressed the theme. Smith *et al*. (2009) recommend that it is up to the researcher to make the decision about how many participants' comments would credibly make up a theme; they suggest anything from a third to half of all participants. A table was created and a cut-off point of at least five out of sixteen participants in part 1 and three out of eight participants in part 2, expressing each respective theme, was chosen by the researcher as a means of realising at least a third of contributions made by the subjects. As previously stated, the themes most frequently mentioned by the participants and how often these emergent themes have been referenced by them are referred to as 'numeration', and to support the creation of the super-ordinate themes each one had a specific table devised relating to the emergent themes. The tables (tables 5.2–5.6, 6.2–6.6) identify the emergent themes that the researcher felt best encapsulated individual super-ordinate themes, and provide demonstrable 'numeration' as recommended by Smith *et al*. (2009).

If the study was utilising case studies with small sample sizes of three to six participants, the next stage would be step 5 in the analysis; Smith *et al*. (2009, p.100) would suggest this is 'moving to the next case'. This would involve examining each subject in depth, therefore taking an idiographic stance (Coyle, 2014). However, for larger samples it is not always possible to examine each case in depth to determine what the key themes are that represent the whole group. It is therefore suggested that the ensuing step in the process of analysis is to write up the findings to produce a narrative account of what meaning the researcher has attached to the findings (Smith *et al*., 2009). The following step, therefore, that the researcher undertook was to read and re-read the themes making up each super-ordinate theme, to write a generic account relating to each of the themes with supporting extracts, and to consider what it meant to the participants as a whole to care for women with raised BMIs during the childbirth continuum, consequently adhering to the 'hermeneutic circle' (Smith *et al.*, 2009. p.27). In doing so, an analytical interpretative narrative was produced by the researcher and can be found in chapters 5 and 6 for parts 1 and 2 of the study.

To achieve this interpretation, however, the researcher did not just accept what was expressed by the participants, but also endeavoured to critically question these accounts (Shinebourne, 2011) by returning to the data to focus on meanings throughout the process of analysis (Smith & Osborn, 2003).

The data analysis approach for IPA provided a rigorous systematic process by which the data could be interrogated (Barbour, 2008), in the first instance to ensure that the researcher focused on both groups of participants' experiences of caring for

this client group to determine the participants' 'world' (Larkin *et al*., 2006); and secondly, to generate an analytical interpretation of what the experience of caring for women with raised BMIs meant to them (Smith & Osborn, 2003). The process of performing data analysis using IPA was an iterative, dynamic, empathic (Shinebourne, 2011), interesting, motivating and informative experience for the researcher. The concept of the 'double hermeneutic' approach was applied in that the researcher endeavoured to make sense of the participants making sense of their experiences of caring for this client group (Smith *et al.,* 2009). This was a constant process of returning to the data to establish meaning from the participants' perspectives within the context of midwifery practice and then questioning the truth of that derived meaning. The use of IPA also guided the researcher to attempt a deeper level of analysis, referred to as second order by Larkin *et al*. (2006), helping to provide unique insights on what it means to care for this client group, which may in turn offer broader implications for care delivery.

4.7 Consideration of Rigour

Rigour is an essential component for any research study to demonstrate the quality and integrity of the research undertaken. Certain steps are required by the researcher to ensure that rigour has been strived for in both qualitative and quantitative studies (Rees, 2011). In 1985 Lincoln and Guba suggested a framework of four criteria – credibility, dependability, confirmability, and transferability – to determine the truthfulness of qualitative research. Their aim was to provide a structure to match the quantitative approach's key requirements of internal validity, reliability, objectivity and external validity. The term trustworthiness, therefore, encapsulates the above mentioned qualitative framework to ensure that qualitative research represents the truth (Butler-Kisber, 2010). An IPA study, therefore, should be able to demonstrate the components of trustworthiness to ensure its integrity and meet the essential requirements of rigour (Roberts, 2013).

To ensure another element of trustworthiness in conjunction with meeting Lincoln and Guba's (1985) criteria, the concept of reflexivity was practised by the researcher during the conduct of this study, as discussed in chapter 3 (Walker *et al*., 2013); this also ensured confirmability.

Dependability refers to the stability of data over time and conditions (Polit & Beck, 2012) and in quantitative terms relates to reliability (Williamson & Whittaker, 2014). Within the context of this study the researcher is satisfied that the appropriate methodology and research methods were applied to answer the research question.

Explanations for these decisions have been previously discussed in chapter 3 and earlier in this chapter.

To further reduce the risk of bias and also to ensure rigour, more than one researcher should be involved in the process of data analysis (Steen & Roberts, 2011). Trustworthiness of the data was also ensured by a colleague, who had not had any involvement with the research, randomly and thematically analysing seven interview transcripts, which confirmed the researcher's main findings. The study supervisors between them read over sixteen of the interview transcripts. This also ensured credibility by assuring that the interpretations of the transcripts were trustworthy and true representations (Moule & Hek, 2011) of what it meant to the participants to care for this client group. Credibility is therefore a key component in ensuring rigour is applied as it refers to confidence in the truth of the data and its interpretations (Polit & Beck, 2012). Rigour can be further ensured in the area of data analysis by providing exemplar quotes from the transcriptions of the interviews to aid verification of the findings (Black, 2006), and these will be demonstrated in chapters 5 and 7.

To further ensure trustworthiness of the research findings, the researcher must be able to illustrate her steps in the data analysis process in order to demonstrate that the findings are not based on personal opinion, but on a rigorous analytical and transparent process (Roberts, 2009). Transparency is an integral tenet in the conduct of a qualitative study, so that other researchers can follow how the research was done (Griffiths, 2009). It ensures that rigour can be achieved in this research study by the researcher demonstrating transparency in the research process and by being open to external audit (Smith *et al*., 2009). The researcher has striven to provide an auditable systematic research study, an 'audit trail', not just on the conduct of the research (e.g. sampling, data collection and analysis), but also on how decisions were made about the research design and how the conclusions were derived (Smith *et al*., 2009).

Transferability refers to the extent to which the study's findings can be transferred to other settings or groups (Polit & Beck, 2012). Due to the nature of a qualitative study, this research cannot be generalised to the population, but its findings will provide a snapshot and illuminate practice (Mapp, 2008) for practitioners working in similar environments.

This study has attempted to ensure good practice in the application of rigour to its processes and in due course its findings. The researcher will endeavour to demonstrate a transparent auditable research process throughout the thesis, with

the ultimate aim of achieving a truthful representation of the research under study by applying the components of trustworthiness.

4.8 Costings of the Study

Appendix 22 details the costings of the study and how these costs were met. No external funding was applied for which might have unduly influenced the research (Parahoo, 2014). The researcher, however, was the grateful recipient of the Emma Egerton Memorial Prize, University of Chester, in 2013, which enabled financial help with the conduct of the study.

Chapter 5: Exploration and Contextualisation of Findings for Part 1

5.1 Introduction

This chapter will place the findings from part 1 of the study into a wider context, and provide a dialogue of engagement between the findings and the existing literature as expressed by Smith *et al*. (2009). This information flow will be structured under the super-ordinate themes of Negative Impact, Size Matters, Catch 22, That Sinking Feeling and Caring Against All Odds. Where no existing literature is cited, the study will demonstrate new information derived from the findings. Participants' voices are displayed in short quotes taken directly from the NVivo 10 coding system in which the researcher has inputted the study's data to support (Bazeley & Jackson, 2013), enliven and add credibility to the study's findings. The study's aim of determining and considering what it meant to this sample group (midwives) to care for women with raised BMIs during the childbirth continuum is fully explored within this chapter. Table 5.1 provides a depiction of the emergent themes that together form the super-ordinate themes.

Table 5.1: Part 1 Midwives: Creation of super-ordinate themes

Super-ordinate themes	Emergent themes
Negative impact	Hard work
	Impact on care
	Negative impact on resources
Size matters	Apologetic, vulnerable and embarrassed women
	Judgements
	Raised BMIs are the norm
	Size of midwife
	Women unaware of the implications of their size
That sinking feeling	Midwives' anxieties
	Midwives' frustrations
Catch 22	Associated risks
	Communicating risks
	Homebirth
	Issues of communication
	Women are offended by communication/care
Caring against all odds	Health promotion
	Ideas for improving the service
	Midwives' concern and care for the women
	Promoting normality against the odds
	Seeing beyond obesity
	Strategies for communication

5.2 Super-Ordinate Theme: Negative Impact

This super-ordinate theme was created by amalgamating the emergent themes found in table 5.2, and was derived as a means for the researcher to headline the negative connotations engendered in the metaphor 'Negative Impact'. The issues with delivering care to women with raised BMIs were considered by the midwives to be many and varied, ranging from the practicalities of trying to deliver safe care and the lack of appropriate resources, to the sheer physical hard work involved. This super-ordinate theme appears to be the most important to the midwives in terms of how many times the emergent theme of 'impact on care' was mentioned in the transcripts by the participants. All sixteen midwives referred to the impact that caring for women with BMIs ≥30kg/m^2 had on maternity care delivery, and this was mentioned on ninety-two occasions during data collection. The findings demonstrated under this theme display the negative associations that midwives identify in caring for this group of women.

Table 5.2: Super-ordinate theme: Negative impact

Emergent themes making up super-ordinate theme	How many participants mentioned theme	How many times theme was referred to by participants
Impact on care	16	92
Negative impact on resources	12	22
Hard work	7	19

5.2.1 Impact on care

These difficulties commenced during antenatal care where midwives found that on occasion they were unable to perform an abdominal palpation to determine the lie of the fetus or size of the fetus, therefore resulting in these women being referred for ultrasound scans for fetal growth and position. There is a real sense of the midwives struggling to perform routine care which is required to ensure fetal wellbeing. Therefore, normal midwifery practice from this perspective is not achievable for the midwives, and they are relying more on technological intervention when caring for this group of women:

> Megan You've just no idea what you're palpating and in which case we just get a scan.
>
> Beth I think the ones that are very large abdominally, even palpating is a struggle sometimes because you can't… it's not always easy to work out

> your fetal parts and just ensuring that you've got like the right presentation because if they're very abdominally sort of obese and you've got a lot of fat there it's very difficult sometimes to be able to palpate effectively.

Referring the women for an ultrasound scan, however, is not without its problems as the situation is further complicated at times by midwife sonographers, sonographers and obstetricians being unable to perform ultrasound scans for fetal growth and position due to the extra abdominal adipose tissue present in women with raised BMIs. This illustrates that there are limitations to the scan equipment and, more concerning, it suggests that for some women with high BMIs it will not always be possible to ascertain fetal wellbeing antenatally.

> Ivy When you're doing the booking on this lady and when you've calculated her BMI, we're obliged to tell them straight away that you might choose to have first trimester screening but it actually might not be available to you because of, you know, body size and we've got the standards the screening committee have set us is that if we can't get a nuchal in 20 minutes of doing that scan then we have to abandon it and say to the lady this is a failed investigation, you'll have to have second trimester screening… the perception of women thinking scans pick everything up and again the limitations of although we've got very good equipment, there's still limits to what they can do.

Another determinant for assessing fetal wellbeing antenatally is to monitor the fetal heart rate by performing a short abdominal cardiotocograph (CTG) trace. This is usually indicated for problems identified in pregnancy and is usually performed as part of the triage assessment e.g. reduced fetal movements, abdominal pain, and antepartum haemorrhage (Crafter & Brewster, 2014), and is also used to assess fetal wellbeing in multiple pregnancies (Davies, 2014). The midwives experienced great difficulties in trying to perform abdominal tracing of the fetal heart rate for women with these defined indications; and felt that this was their main obstacle in achieving optimal antenatal care for women with BMIs ≥30kg/m^2 with other identified risk factors. It is also evident that trying to assess fetal wellbeing is very labour intensive and time consuming for the midwives, and that ultrasound scanning and the help of obstetric colleagues is sometimes resorted to, to evaluate the fetal heart rate. However, the midwives do welcome the help:

> Kerry But listening in on the monitor is a particular problem. Just poor contact, loss of contact and sometimes you have to get the mum to hold the pad in place or get the husband to sit there if you haven't got the time to sit there for 20 minutes to get a good uninterrupted trace. The main issue antenatally is listening in with the C.T.G. monitor.

> Beth But I think that the main issue I found antenatally is being able to monitor, monitor the babies… if they're coming in with maybe some bleeding or abdominal pain and you want to do a cardiotocograph and if you've got a lady that's quite sort of obese it's very difficult often to find the fetal heart and be able to get a trace that you can then interpret properly. You often have to

sit there and hold it on, or get the woman to hold it on because as soon as you let go you just… you haven't got that bit of pressure that needs to hold it in the right place. I do find that difficult.

Fleur And so in the end I just phoned the registrar and said look I've got this lady, she's come in, twin pregnancy, she's concerned about her movements, will you please come and scan her because I just cannot hear these babies at all. And he said that's fine, I'll come down and he scanned and he said to me, he said, to be honest I found it really difficult when I'm scanning. He said I found it really difficult. He said it's no wonder you've really struggled he said because he said I have really struggled with the scanner he said because you know, because of the maternal build he said, I just couldn't get through it all to like even get to the babies with the scanner.

From the perspective of checking and ensuring fetal wellbeing, it is apparent from the study that the midwives are facing considerable difficulties in this aspect of routine care delivery.

During intrapartum care the theme of having difficulties in assessing fetal wellbeing continues. An abdominal palpation is a requirement during labour care on admission and prior to consented vaginal examination to determine fetal lie, position and descent (Viccars, 2009). However, abdominal palpation continues to be difficult as midwives are finding it challenging to determine presentation, whether cephalic or breech. Again there is this sense of anxiety and frustration because the midwives are unable to perform an assessment which is integral to midwifery practice, and a failure to do so involves them having to ask other personnel who are able to scan (midwives and obstetricians) to enter the labour room. This inability to perform routine care for this client group must affect midwives' self-confidence, but also cause them to be concerned about making a mistake (wrong findings on palpation). For the midwives, current practice still determines that there is no difference between the requirements of women with normal or high BMIs in the conduct of abdominal palpations. Despite being faced with the daunting prospect of trying to determine findings by conducting abdominal palpations on women with BMIs ≥30kg/m^2, the midwives still endeavour to do so:

Megan Well you get the ladies that you just physically, you cannot palpate. You cannot. You've no idea what you're palpating.

Zoe You go to examine and you don't know what you're feeling because it's just all mass and you, you know, all the elements of the examination are hard so palpation you're thinking is that a head, is that a head, is that a head? I don't know 100% and I've been inclined to say look I'd rather just scan you to just be sure that the head's down there because I wouldn't want to make that mistake.

The major difficulty during labour care for the midwives is trying to monitor the fetal heart rate (FHR) for signs of hypoxia, particularly if it is not appropriate to apply

a Fetal Scalp Electrode (FSE) e.g. cervix not dilated enough, high fetal head in the pelvis (Ross, Isaacs, & Beall, 2014). Midwives sit with the women for hours trying to obtain a continuous electronic fetal monitoring (EFM) trace of the FHR. If it is possible to apply an FSE this is not without difficulties due to it becoming detached and needing to be reapplied. Therefore, midwives are struggling to monitor the FHR during labour which is a vital component of ensuring fetal wellbeing:

> Kerry When you're trying to monitor a woman with raised BMI sometimes it's much, much harder to listen to the fetal heart beat because there's just so much more mum in between you and the baby.

> Laura If you're over a BMI of 35 then you're gonna need continuous monitoring and if you stand up that's really difficult and I always find myself kneeling at the side holding on the monitor trying to prevent them having a fetal scalp electrode which is invasive, especially if their cervix isn't open. So that takes me away from doing other things and I can find myself getting a little bit hot and bothered if I'm trying to keep a good trace on a CTG and think about caring for the lady and think about documenting in my notes. I find that… I always find that a big struggle.

> Megan We could not monitor the baby so we had to get an FSE, the FSE would not stay on. We had to bring a scanning machine in to basically sit there. We couldn't get the FSE on and in the end because there was absolutely no way to monitor this lady, she ended up having a section because there were decelerations. We couldn't decipher what kind of decelerations they were.

Being unable to monitor the FHR in labour externally, either by using a Sonicaid or via an abdominal CTG transducer (Jackson, Marshall, & Brydon, 2014), can lead to a cascade of interventions: the first intervention would involve the attachment of an FSE (via vaginal examination), subsequently having difficulty with the FSE repeatedly becoming detached and therefore FHR monitoring not being achievable. The attendant anxiety this causes the midwives from not being able to ensure fetal wellbeing, and the potential threat of ligation to them as the accountable practitioner responsible for the care of the women, will be discussed further under the super-ordinate theme 'That Sinking Feeling'.

Another aspect of difficulty for midwives caring for this client group in labour is performing a vaginal examination, which is routine practice to determine a women's progress in labour and which is usually conducted every four hours (NICE, 2014a). The difficulty is that midwives are struggling to reach the cervix to assess dilatation and this is further compounded if the midwife has a petite stature. As a vaginal examination is of an intimate nature it is usually performed as swiftly as possible between contractions (McCormick, 2009). For midwives, this intimate aspect of midwifery practice provides yet another challenge for them in providing care for this client group:

Zoe Sometimes internal examinations are hard, especially if they've got quite a lot of tissue, their upper legs and things like that.

Megan It's difficult doing vaginal examinations as well because like I said I'm only 5ft 1inch. I've got a small build. So small hands, small fingers, it's just very, very difficult. It's just…you know? The practicalities of large ladies, you know.

Postnatal care difficulties appear to centre around wound healing issues following caesarean section deliveries, an apparent reluctance of the women to mobilise, and the problems of breastfeeding in trying to latch the babies on to the women's large breasts. These postnatal issues can considerably add to the midwives' workload, e.g. extra visits in the community to check on infected wounds and extra support to help women establish breastfeeding. There appears to be an acceptance that this client group will on the whole develop a problem with their caesarean section wound, thus requiring antibiotic therapy which may or may not be contra-indicated with breastfeeding; and that this, together with feeling unwell with a wound infection, will diminish the women's desire to breastfeed. Midwives also feel that they spend extra time cajoling this group of women to mobilise post-caesarean section:

Mia Postnatally, obviously they're more pre-disposed to caesarean section and therefore you obviously sometimes have an abdominal overhang and there's often wound infections and you know, people have to go on antibiotics and that can interfere with the breastfeeding so it's quite a knock-on effect.

Zoe But the other thing is breastfeeding. That as much as we know, we know that the bigger the bust there should make no difference to feeding at all but I kind of, I don't know, I kind of feel that it does. I don't know whether it's just the way the women handle themselves but you do tend to find that sort of women with a very, very large breast which sort of hang to the side, they struggle immensely with feeding no matter what position we're going for.

Beth People have been quite reluctant to mobilise and you've sort of been trying to talk them into being able to just slowly start to mobilise around the ward.

Manual handling issues also appear to have a negative connotation regarding care delivery from the difficulties encountered in attempting to place women's legs in the lithotomy position, to being unable to perform fetal blood sampling in the left lateral position, to women being disinclined to move themselves around the bed and being reluctant to mobilise, and the simple difficulty in being able to transfer them to theatres. There is a perception that the women's reluctance to be mobile in labour is because their size induces them to be lethargic, and it is therefore more difficult for them to be mobile and active during labour. It is also evident that more personnel are required to care for this client group in labour to reduce the risks of injury to staff:

Ava Better just pop her legs up there in the stirrups and I said I can't lift her leg and I couldn't on my own lift her leg. So we ended up with the ODAs (Operating Department Assistants) and the doctors trying to lift this woman's legs up onto the stirrups.

Laura She did have to have some fetal blood samplings which we would usually do in left-lateral which was impossible to do with her. I can't remember her BMI but she had to be put into the lithotomy and that would take two of us to do it because I couldn't do it by myself or I did try a little bit and that wasn't working so I got someone else in which then means that you're pulling on other midwives to help you which is frustrating but it has to be done so you know, that was quite a hard day to be honest and I was tired afterwards but it does help when they're so lovely.

Ivy So to get this lady in the bed to push the bed into theatre we had like nearly eight members of staff to make sure that the staff weren't getting hurt and again the lady was very conscious that it took so many people to do that little thing for her.

Tess Probably because they're not very often willing to move. No they're not. But they get tired easier don't they?

5.2.2 Negative impact on resources

There appears to be a significant negative impact on resources caring for this client group, including more referrals for scans due to midwives being unable to determine size and position of the fetus. A care pathway includes Glucose Tolerance Tests (GTTs) for all women with a BMI ≥30kg/m^2, a referral to see an obstetrician in some of the Trusts, and referrals to an obstetrician and anaesthetist in all Trusts for women with BMIs ≥40kg/m^2. This new care pathway has increased the number of women attending hospital antenatal clinics, but the frequency of the clinics has not been increased, only their capacity. More staff are required to help with manual handling issues and transfers to theatre. Though some specialised equipment has already been purchased, more is required: bigger theatre tables, bigger beds, bigger chairs, bigger blood pressure (BP) cuffs and flowtrons and anti-embolic/gradient compression stockings (TEDS) as the obese maternity population is getting bigger.

Some staff feel that sometimes the resources required are not readily available and this has an impact on care due to the time taken to acquire these resources, and indeed some equipment has its limitations such as the ultrasound scanners. Therefore the cost implications are very significant for caring for this client group.

Ava As I say the glucose tolerance tests, you know, almost every other woman is having to have that, well that's a cost. They're all having to have growth scans with BMI 35 so that's a cost implication. They more often than not have to have a presentation scan and that's the other thing.

Lily There is an increase in the clinic numbers and it puts pressure on. The clinics aren't expanding. There's no bigger time frame. Still… instead of it

being like 30 women per clinic you have now 40 women per clinic and still the same amount of time.

Kerry For ladies with a very high BMI like that lady, sometimes we haven't got TED stockings that will fit or even flowtrons that will fit so… sometimes you can't put anything on them if nothing will fit but then at least they are having the Clexane so they're getting some prevention against the risk of clots in that respect.

Julie Like just difficult to give excellent care when you're trying to chase round equipment that you need or the equipment that you've got is make do and mend, it's difficult really.

5.2.3 Hard work

Midwives admit that they find it difficult, hard work, stressful and at times a real struggle to deliver care for women with raised BMIs. The hard work aspect is not just related to how difficult it can be to perform routine midwifery care, but is also linked to how physically draining and tiring it can be to care for this client group specifically when they are in labour. An example of this is associated with the detachment of the fetal scalp electrode. This occurs when the lead that attaches it to the woman's leg (Ross *et al*., 2014) is not long enough due to the increased adipose tissue present on the women's legs. If the woman also has an epidural this compounds the situation as the woman will require help in positioning herself and her legs for a vaginal examination. The midwife cannot lift the woman but can assist her with manual handling techniques in accordance with their Trust's policy. The repeated reattachment of the electrode is time consuming and is indicative of why the midwives consider it extremely hard work to deliver care for this client group.

The physical demands are at times compounded by having to care for women in rooms not considered big enough for them. This draining of energy from the midwives appears to be because most routine care takes longer to perform and is more demanding to conduct, is not always successful, and induces worry, stress and anxiety in them. Added to this are the ergonomics and logistics of care delivery to morbidly obese women in labour:

Beth I think sometimes it's difficult, it's difficult to carry out what you'd class as sort of normal clinical skills because they can become a struggle. I'm very much a person that wants to treat everybody the same regardless. So the fact that somebody has got a raised BMI doesn't make a difference to how I treat them or what I may do, but clinical skills can be made more difficult than perhaps what they are with somebody whose BMI is of a normal range.

Megan Just the ergonomics, just trying to actually deal with ladies that are so large, the ladies are so large, I just find difficult.

Tess Generally I think it's quite daunting really. I think initially you kind of know you're in for like a long haul.

Cerys So it is a harder workload. Without a doubt, it is.

5.2.4 Negative Impact: Discussion

Significantly, this super-ordinate theme was mentioned by all the midwives who participated in the study, and it reveals the impact that caring for women with raised BMIs has had upon their professional role and in practice. It emphasises the extent to which the changing demographics of women's increased BMI measurements has materially increased the difficulties experienced with the delivery of routine midwifery and maternity care. It is indisputable that the midwives find it increasingly hard work caring for this client group and that it has had an adverse effect upon resources.

Routine clinical tasks in the provision of care are considered to be more difficult to perform than if the women had normal range BMIs. These findings are supported by Schmied *et al*. (2011), and by Singleton and Furber (2014); the latter examined the experiences of midwives when caring for women with a BMI ≥30kg/m^2 in labour.

Caring for women with BMIs ≥30kg/m^2 during the childbirth continuum almost inevitably entails physical hard work in the performance of routine midwifery care. The fact that it is physically tiring to care for this client group is confirmed by Knight-Agarwal *et al*. (2014). The study investigated health professionals' views and attitudes towards providing antenatal care for women with a high BMI; and whilst that study's focus was antenatal care, the midwives in the current study would argue that providing intrapartum care presents the most physically demanding aspect of care delivery. Significantly, midwives also found it particularly challenging and even more difficult if they were working by themselves and were not mentoring a student midwife, thus suggesting that more than one individual is required to care for this group of women. These findings regarding the physically demanding aspect of caring for obese patients are paralleled within nursing practice by both registered and student nurses in the general nursing sphere of practice (Poon & Tarrant, 2009), and in providing care for elderly obese individuals in residential care (Bradway, Miller, Heivly & Fleshner, 2010).

In Singleton and Furber's (2014) study, midwives felt 'powerless' because they could not perform routine tasks and had to refer to obstetricians. Interestingly, the midwives in this study welcomed the help of their obstetric colleagues in trying to ascertain fetal wellbeing. They are aware of their own practice limitations and are practising according to the Midwives Rules and Standards (NMC, 2012). Nevertheless, striving to perform routine clinical care procedures is proving incredibly time consuming for the midwives, and although failure to perform them

does not make them feel powerless it does increase their levels of stress, frustration and worry.

Similarities regarding the difficulties of providing routine midwifery care within a healthcare setting can be drawn with nurses providing care to obese patients (Brown, 2006; Camden, 2009; Cowley & Leggett, 2011), suggesting that the difficulties and challenges of providing routine care for obese individuals can occur during any aspect of healthcare delivery.

Under this super-ordinate theme, one emphasis was on the difficulties that midwives face when trying to assess and monitor the FHR during intrapartum care, particularly on the need for women with a BMI ≥35kg/m^2 to have continuous CTG monitoring of the FHR. This practice is not demonstrated in the findings of Schmied *et al*. (2011) and Singleton and Furber (2014) unless the individual client requires it for a clinical indication (NICE, 2014a). There is no national guidance on the requirements for continuous CTG monitoring of the FHR for women with raised BMIs with no co-existing risk factors or co-morbidities. In Singleton and Furber's study (2014) midwives were uncertain whether continuous CTG monitoring should be standard for this group of women, whereas in this study it is a clinical surveillance requirement that existing Trust policies are dictating (Intrapartum Care Trust Policy, 2014) and which is greatly impacting on the midwives' workload.

NICE *Intrapartum Care* guidelines (NICE, 2014a) recommend that the FHR is auscultated every 15 minutes following a contraction in the first stage of labour, and every 5 minutes in the second stage of labour for low risk labourers. There is presently no national guidance on what is appropriate FHR monitoring for women with BMIs ≥30kg/m^2. However, there are guidelines in development by NICE (2014b) regarding *Intrapartum Care for High Risk Women* which may clarify this situation, but this is of no assistance to midwives who are currently in practice. Individual Trusts are determining this practice which is as yet not underpinned by evidence-based information. The midwives, however, would like to consider each woman's monitoring requirements individually, but do not want to go against Trust policies and feel they must adhere to them (Marshall, Vance & Raynor, 2014). A midwife's accountability has to be considered in this situation (McKenzie, 2009), as midwives are responsible for ensuring that they are able to monitor the FHR effectively (NICE, 2014a); failure to do so without referring the difficulties to an obstetric colleague could result in their practice being questioned (NMC, 2012) or litigation (Marshall *et al*., 2014) if the outcome is poor.

The reason why midwives are prepared to hold the abdominal CTG transducer in place for so long when a fetal scalp electrode cannot be applied is because if the

FHR cannot be assessed they are worried that this could potentially lead to a cascade of intervention, resulting ultimately in a caesarean section for the woman because fetal wellbeing cannot be assured, and the midwives want to prevent this at all costs. Causative factors for this prevention of intervention are threefold. Firstly, a caesarean section delivery can prove to be logistically difficult and the midwife's workload will inevitably be further increased. Secondly, the midwives want to reduce the women's risks of morbidity associated with the operation and post-operative complications (Rajasingam & Swamy, 2010). A third factor is that despite this client group being identified as a high risk group (Bell & Cronje, 2010), midwives still promote and endeavour to achieve normality with the women. Rajasingam and Swamy (2010) believe that there is no agreement as to which type of birth is the safest for this group of women.

The findings of midwives encountering difficulties with women who had problems with breastfeeding and who therefore required more breastfeeding support and who also experienced more caesarean section wound breakdowns are also evidenced in Schmied *et al*. (2011) and Knight-Agarwal *et al*. (2014); however, this latter study was supposed to only focus on antenatal care delivery. What has not been expressed in any other studies (Schmied *et al*., 2011; Singleton & Furber, 2014) is that some of the women with raised BMIs want an explanation why their caesarean section wounds have become infected, and this has challenged the communication skills of the midwives because they do not want to respond directly to the women and suggest it is because of their size. (This is discussed in detail under the Catch 22 super-ordinate theme.) Though Nobbs and Crozier (2011) believe that undergoing a caesarean section involves risks for all women of developing a wound infection, these risks are intensified for the maternal obese population due to their adipose tissue, co-morbidities, poor nutrition and reduced mobility, which can inhibit a wound healing normally.

The manual handling issues that were highlighted in this study are replicated in the study by Schmied *et al*. (2011) in that the midwives felt that they required more robust policies to ensure staff safety, which is also supported by Knight-Agarwal *et al*. (2014). Both studies, however, were conducted in Australia. The issue was alluded to in this current study when it was expressed how heavy women's legs are to lift when assisting the obstetrician to perform fetal blood sampling; the attendant risk of injury was also expressed. The preferred position for the women to be in is left lateral (McCormick, 2009) with her right leg held aloft for fetal blood sampling. Manual handling policies in England therefore need to be addressed because of the change in weight of the maternity population and the increased risk of injury to

midwives and other health professionals. This is reinforced by a midwife injuring her back in the Schmied *et al*. (2011) study by lifting a woman's leg to assist her to give birth, and personnel injuring themselves performing scans in the Knight-Agarwal *et al*. (2014) study. Pandya and Hogg (2010) suggest that injuries to scan operators are usually focused on the wrist due to the increased scan time required to obtain adequate images and to the position of a hyperextended wrist (whilst gripping the transducer) usually required to obtain these views. This is supported by Smith *et al*. (2012) who also found that healthcare professionals reported shoulder strains.

Conversely, injury to midwives' hands and wrists may be a complication of trying to continuously monitor the FHR abdominally in the future. What is apparent from the findings in this current study is that more healthcare personnel are required to care for this client group to help reduce the risk of injury and to reduce midwives' stress levels; the area of care where this should be focused in particular is intrapartum provision. In providing nursing care for obese patients, manual handling requirements are identified throughout the patient's encounters with the healthcare system to reduce the risk of injury to staff (Cowley & Leggett, 2011) and to cause minimal loss of dignity to the patients (Hignett & Griffiths, 2009). Similarly, within the current study, midwives are also concerned as to how the women feel regarding these extra manual handling requirements and do not wish to contribute to their embarrassment.

Resource issues are implicated in the desire to provide optimal care for this client group. It became apparent in the current study that sometimes there are no solutions and that fetal wellbeing cannot be assured because the resources, such as ultrasound scanning, are finite; in this case, it can be due to time allowances being limited and the depth of adipose tissue that the scanner can penetrate (Pandya & Hogg, 2010). The limitations of scans were also found by Schmied *et al.* (2011), but the time limit for performing a scan is a recent occurrence in the sample settings.

Although equipment may have been adequate when purchased only a few years ago, it has been demonstrated in this study that the women are getting bigger with BMIs in the 50s kg/m^2 not being unusual, and as a consequence equipment requirements are ever changing. CMACE's (2010) national survey of maternity services in the United Kingdom found that maternity units were not adequately prepared in terms of equipment needs for the super-morbidly obese client, and it appears that this situation is likely to become ever more challenging. Whilst there are instances such as that reported in Schmied *et al*. (2011) where a midwife could not find scales to support the weight of the pregnant client she wanted to weigh (meaning she had to weigh her in the hospital's loading dock), the participants in the

study did not report any undue concerns about the availability of scales. Midwives in Singleton and Furber's (2014) study suggest that equipment should be provided that fits all sizes to help reduce embarrassment for the women, and the midwives in this current study would readily concur. On occasions, when appropriately sized equipment was not available during routine medical examinations, this caused obese patients to became very embarrassed and upset (Merrill & Grassley, 2008). This suggests that routine encounters with healthcare personnel can become emotionally charged due to lack of resources.

A picture has emerged within the study of where the cost implications to the NHS could arise due to the increasingly obese maternity population. The participants detailed increased personnel requirements to reduce the risk of injury to staff and to deliver safe care; the purchase of appropriately sized and weight bearing equipment; and increased capacity at hospital antenatal clinics to meet the increased requirements for investigations (e.g. GTT) and scans and repeat scans to ensure fetal wellbeing. Research on the relative costs of caring for the obese maternity population is sparse: no published national collection of statistics for women with BMIs ≥30kg/m^2 exists, though a systematic review by Heslehurst, Lang, Rankin, Wilkinson, and Summerbell (2007b), conducted to determine the resource implications and pregnancy outcomes in relation to women's BMI status, corroborates that the cost implications to the NHS are considerable. The researchers elaborate that the surveillance required to monitor the attendant risk factors, increased medical intervention and midwifery care requirements further compounded the cost. A study conducted in Wales to ascertain the direct costs of being pregnant and overweight or obese, found the total cost of healthcare for a woman of normal weight to be £3, 546.30, £4, 244.40 for an overweight woman and £4, 717.64 for an obese one (Morgan *et al*., 2014). A study conducted by Heslehurst *et al*. (2010) established that due to maternal obesity an additional 47, 500 beds per year were required for women in high dependency care, thus indicating serious cost implications for service providers.

Extra costs are implicated in providing care for obese patients, with the annual costs of providing obesity care to all users of the NHS being estimated at £6.1bn. These costs are predicted to rise by £2bn by 2030 (PHE, 2015), clearly indicating that obesity care provision – for whatever health reasons – are costly and will seriously impact on future resource requirements.

In summary, having a raised BMI ≥30kg/m^2 is considered to negatively impact on care delivery, making routine clinical tasks much more difficult to perform for the midwives, and requiring more resources in terms of more personnel and of

equipment which is differently sized and capable of bearing increased weight. Providing care for this client group is without doubt physically hard work for the midwives. The extra cost implications of caring for this client group are noteworthy and significant. The findings within this super-ordinate theme resonate with and are supported by some existing midwifery research literature, though it has proven to be relatively sparse on this topic, and some new information has undoubtedly therefore been produced and discussed.

5.3 Super-Ordinate Theme: Size Matters

Table 5.3: Super-ordinate theme: Size matters

Emergent themes making up super-ordinate theme	How many participants mentioned theme	How many times theme was referred to by participants
Judgements	15	39
Raised BMIs are the norm	14	27
Size of midwife	10	14
Apologetic, vulnerable and embarrassed women	9	17
Women unaware of the implications of their size	7	9

Size Matters comprises the emergent themes found in table 5.3 that encapsulate this super-ordinate theme. The application of the metaphor Size Matters represents the judgements that can sometimes be made by personnel within the midwives' practice setting regarding the size of the women they are caring for; the realisation that raised BMIs have become the norm; the relative size of the midwife herself; and the attitude of the women themselves who can sometimes be vulnerable and embarrassed by their size, but in other instances be unaware of the implications of their size.

5.3.1 Judgements

Caring for women with raised BMIs now appears to be embedded within midwifery practice. Sometimes, however, the midwives find themselves unprepared visually for the size of some of the women with very high BMIs that they encounter, particularly when providing intrapartum care. Judgements are inextricably linked to the fact that midwives are shocked at the size of women with high BMIs in the 50kg/m^2 range, because it has previously been outside the realms of their professional practice experience to care for women of this size. It must also be a consideration that within society midwives only see women of this size clothed, and midwives reported in the study that some antenatal clients wore layers of clothes to further cover up their

bodies. Caring for a woman in labour puts the midwife in close physical proximity with the women in the conduct of clinical assessments to determine the women's physical wellbeing (temperature, pulse, blood pressure) and labour progression (vaginal examinations).

Midwives admit to having some preconceived ideas about the potential difficulties they may have with care delivery during labour, when they are informed beforehand that they will be caring for a woman who has a high BMI. The perception that it is going to be a struggle, that it is difficult and hard work to deliver care within a labour ward setting, is not without foundation as previously identified and discussed under the super-ordinate theme 'Negative Impact'.

The women are identified by their BMIs on labour wards in some instances, though midwives do not think this is acceptable; however, this is the culture of the environment they are working in. It is suggested that negative comments abound regarding a client's size, expressed by other medical personnel not directly caring for the women; and this can cause the midwives to feel very uncomfortable, particularly upon their return to the women in their care. There is a clear resolve by the midwives to eradicate these external influences, so that they do not subliminally impact upon their interactions with the women in their care. There is an evident sense that whilst midwives do not want to judge or stigmatise this client group, they do not feel assertive enough in some instances to necessarily challenge the judgemental behaviour of others, because they feel unable to challenge the stereotypical dogma expressed. The positive aspect to this emergent theme is that women in this client group are not stigmatised by the midwives who are directly caring for them, who endeavour to always empathise and block any negative judgements from colleagues who do not appear to affect care delivery.

It is interesting to note that midwives are both selected and self-select to care for this client group. It could be suggested that the midwives who self-select do not want women to be cared for by potentially more judgemental colleagues; germane to this is the fact that the midwives themselves have normal range BMIs and can have BMIs ≥30kg/m^2, therefore the size of the midwife is not implicated in their desire to care for this client group. The indications for selecting certain midwives to care for women with BMIs ≥30kg/m^2 in labour are not factors such as experience, but more the personality traits that they possess such as sensitivity, empathy and enthusiasm, and the fact that they are great motivators in trying to help the women to achieve a normal birth:

Ava There was one woman that sticks in my mind because she was so, so big. She was only twenty four and I had come on a late shift and the Labour

Ward Manager thought that I would be a good person to look after her and get her delivered and I went in to see her and you try not to have your breath taken away because that's how big she was.

Ava The only thing that sticks out in my mind is this comment that happened in the staff room of somebody saying flippin' 'eck, you know, how did she ever get pregnant? But that was a very, very large patient. But that was unkind of that particular staff member and… then you've, you sort of… you try and deal with them in the staff room but then you're the one that's got to go back into the room and actually look after her and care for her so… but you've still got those comments in the back of your head.

Lily I think people are sometimes a little bit judgemental I've noticed but I think that just goes with their views in general.

Laura I do always tend to have the larger ladies but it's not… it's not because anyone's being nasty or anything. I think maybe, I don't know, like if there's a lady that has absolutely lost the will and they're right up, fully dilated and they just need a bit of a shove, then I tend to be sent in there because I'm always a bit like (sings), like a bit of a cheerleader and maybe it's for that reason. Maybe they think that I'm a bit sensitive, which I am really flattered by actually.

5.3.2 Raised BMIs are the norm

It appears from the participants that caring for women with raised BMIs ≥30kg/m^2 has in recent years become more the norm and not just with BMIs on the 30kg/m^2 threshold, but women with increased BMIs in the 40kg/m^2 range. Midwives have also related experiences of caring for women with BMIs in the 50kg/m^2 range, with a BMI of 55kg/m^2 being the highest so far. This change in the size of the maternity population has happened progressively, with midwives declaring in the study that women with BMIs ≥30kg/m^2 now appear to account for at least 50% of the women they care for. There is a clear impression that this number is escalating and that the size of the women themselves is also increasing, reflecting the obesity epidemic within society generally. This does demonstrate a change in practice for the midwives because caring for women with BMIs on the 30kg/m^2 threshold appears to be so common now that this level of obesity is effectively normalised, with midwives identifying women with higher BMIs in the 40s and 50s (kg/m^2) as being of more cause for concern, though all BMIs ≥30kg/m^2 are still categorised as being a risk. The view that a BMI of 30kg/m^2 is normal is reflective of the fact that this is more the norm of women in society. Their size has become normalised and a woman in this category booking her pregnancy visually looks well, is well, and would be deemed as low risk were it not for her BMI measurement.

Women with raised BMIs are now part of the maternity landscape with the likelihood that the numbers are only going to increase. The resource implications for this client group have been discussed and identified under the super-ordinate theme

'Negative Impact', and there has to be concern as to the cost implications of dealing with this ever-increasing maternity population with BMIs ≥30kg/m^2.

> Beth To be honest a lot of the ladies that I now seem to care for do have a raised BMI. The majority have been over 30, around the 30 area and them some of them… a lot of them are above. But I think almost that's becoming quite normal now. There's not a lot of women that I am caring for personally that sort of have a normal BMI range.
>
> Cerys I'm seeing an increasing number of them, massively increasing. They're younger girls as well, that's my own observation. And I do think back to when I came here years ago and it was the odd occasion you got somebody.
>
> Tess Probably 50% if it's over 30. But I would say that the population is definitely getting bigger and therefore that our clients are getting bigger. I know it's something that we're probably just gonna have to get on with and deal with really.
>
> Ivy Women with a BMI of 30 is commonplace and I would say that it's not that big a surprise. 30 to me is more like an average number than something that's a bit unusual. I mean I've looked after women on labour ward who've had BMIs of 48 and antenatally we've dealt with a lady recently who had a BMI of 52. So the bigger numbers seem personally to me to be more of an issue. But from, like I say, a pregnancy point of view, 30's not uncommon. 30 I would say is more likely the norm, so. I just get a bit jittery over 40.

5.3.3 Size of the midwife

The size of the midwives can be a consideration in care. Some midwives with raised BMIs themselves state that they refer to their own size with clients to put them at ease. They suggest that they use humour as a communication tool and that they are able to empathise and provide sensitive communication as a means of ensuring they do not cause offence. There is, however, an awareness that colleagues and clients may make judgements regarding them because of their size. This factor is further illustrated because there were some concerns by midwives with normal range BMIs that some midwives with raised BMIs were not being good role models for the women. There is also a perception that midwives with high BMIs are not physically fit and it is an effort for them to deliver care. This is a cause of concern for some midwives, because as previously noted the maternity population is mirroring the obesity epidemic with increasing numbers of raised BMIs, and this is likely to be reflected within the midwifery workforce as well.

Conversely, those midwives with normal range BMIs express concerns that when discussing diet, healthy lifestyle, and risk factors the women can potentially assume that the midwife is criticising them. These concerns do cause communication difficulties for some midwives and raise self-doubt about whether they as midwives with a normal range BMI are always able to communicate as

effectively as they wish with this client group. So midwives' sense of self with regards to their own size does cause them to consider their own body shape and how this can impact upon their encounters with this client group:

> Julie There is a midwife who has got a raised BMI here. She's overweight, she'd say she was overweight. She found it dead easy to talk to women who are overweight 'cause she said you and I are both the same. Now I always had an issue, I'm fatter now unfortunately, that I always felt because I was slim and I had a normal BMI that it would look like I was criticising somebody when I was saying you know, you'll have to lift your abdomen up for me and things like that.

> Ava I said well it's really difficult because if you're gonna do your job properly you have to broach these things no matter how difficult it is for women to hear and this colleague of mine is rotund, let's say, quite bonny, and she said yes, but you know, she said it's very difficult, you know, for you to say anything to someone when you're not overweight. You know, she says it's much easier for me to say something to someone and I said so does that mean I shouldn't mention it? Because then I wouldn't be doing my job properly. I wouldn't be talking to them about diet and how to keep fitter and not to put lots of extra weight on in pregnancy and dah, dah, dah. So that was quite interesting.

> Ivy I think sometimes as well we've got midwives who are large and even physically doing the job you see them struggling like (makes strained breathing noise) huffing and puffing, you know, having to walk really slowly and then you think what kind of role models are we when we've got to that stage where our own BMI's an issue and yet we're saying you need to be thinking about…you need to be doing this, you need to be changing things when we haven't done it ourselves.

> Lily You know, having a raised BMI myself, you know how some people can perceive you in different ways and make a judgement on you, you know, without thinking.

5.3.4 Apologetic, vulnerable and embarrassed women

Some women with high BMIs are perceived by the midwives to be self-conscious, embarrassed and apologetic about their size, and this can impact on the communication between the midwife and woman (which is discussed further under 'Catch 22'). Midwives who have this perception are particularly aware that they must work even harder to build a good rapport during the antenatal, labour and postnatal periods. The women's perceived embarrassment is not just realised in them having to be weighed and their weight being assessed and made known to the midwives, but also in practical terms in clinical care delivery, when they have to expose their bodies or lift their abdominal apron of adipose tissue to enable the fetal heart to be auscultated. The majority of the women with raised BMIs that the midwives have cared for are apologetic about their size, and to such an extent that their behaviour could be viewed as belittling themselves. When the women appear to be self-

denigrating (because their weight is being flagged up as an issue for them in their pregnancy), the midwives feel sorry for them and discomforted in how to respond without uttering meaningless platitudes. The women's perceived vulnerability can therefore make the midwives feel ill at ease, because they do not want them to feel worse about their weight or become upset or be offended by the midwives' actions. The midwives therefore are at pains to ensure that they do not perpetuate any sense of shame, stigma or self-consciousness in the women about their size:

> Laura I do remember looking after one lady who was an induction and she was lovely, really, really lovely lady and she always apologised for her weight... there've been a couple and they've always apologised straight away. It's as if they know and as soon as I say 'Right, let's weigh you', it's like, 'I'm really sorry. I am, I'm overweight.'

> Zoe It's difficult to try and palpate correctly, to find out exactly what weight and it's unsettling for the woman as well and I can sometimes see on somebody with a particularly high BMI that they're very, very embarrassed about it when they have to sometimes hold their tummies up.

> Grace And it's about their own feelings as well, I mean, if you've got a gorgeous body and you don't mind getting undressed or don't mind people seeing you, you know, that's great but if you feel self-conscious or… in any kind of way you feel insecure it gives you… I think it gives the women a feeling of almost… they're almost apologetic, you know, about 'I'm sorry I can't move' or 'Can you just help me to move over' and they're almost apologising for the fact that their BMIs are raised.

> Grace I do find that ladies with an especially an extremely high BMI, most of the time you find them quite self-conscious about themselves and I think you've got to try and get past that and actually build a really, really strong connection with them to help them with the labour and the delivery and even afterwards.

5.3.5 Women unaware of the implications of their size

It is apparent that midwives find it helpful, if only because it opens up communication, when women demonstrate that they are aware that they have a weight issue and that this may be having an impact on their care. However, for the majority of women who are unaware or unaccepting of the risk implications for both themselves and their fetus, there is conversely a potential for a fractured relationship with midwives or even an inability for the midwives to build rapport. With some clients, having a raised BMI is entirely normal to them; and attempting to engage with this specific group about potential risk implications because of their size can prove to be daunting for a midwife. Attempting to raise the issue that they have raised BMIs is really difficult when they consider themselves not to be obese, but of normal size, often because they look like their friends and family. Their perception of size is therefore skewed and in a sense normalised by society. The midwives are in

these instances battling against a woman's own perception that she is of a normal size, and some women's responses have been regarded by midwives as bordering on aggressive, in that they do not want to be informed, are not accepting of any risk factors and wish to remain in denial. Whereas other women are desperate to be enabled to do something to reduce their risks, and are upset that they have become pregnant with raised BMIs having been ignorant of the implications. Essentially, both groups of women are oblivious when they book their pregnancy of the risks of having a raised BMI, both to themselves and their fetus. They can and do react in different ways to being informed that they have a raised BMI with its attendant risks for childbirth, and the sheer unpredictability for the midwives is an additional challenge for them in delivering care for this client group. There is the added concern for midwives that when the women are informed that they have raised BMIs and how this will affect their pregnancy, e.g. consultant/shared care, the women do not appear to understand and appreciate that their maternity care delivery will be different to women with normal range BMIs:

> Laura So a couple of my ladies that have been really conscious of it have said, 'Yeah, I'll do that,' and a couple are just completely… don't want to know, they don't care, they're overweight, they can't see it.
>
> Megan I think sometimes as well, I think it's when the ladies don't… it's almost like they don't… they don't appreciate that they are large ladies. They don't know they're big! They don't.
>
> Beth I think some women are in themselves very blasé. It doesn't occur to them that you know, they're sort of obese and they just kind of carry on regardless and that's what they're used to and they don't… they don't really have an interest in changing diets and things like that and that's really hard.
>
> Tess Then you get the other girls who will tell you where to go.
>
> Cerys Most of them come to the clinic at once, at least once to see the consultant and I actually don't think they realise. 'Well why am I being monitored?'

5.3.6 Size Matters: Discussion

Size Matters means more than ever before as midwives have to consider the size of the women they are caring for in terms of the practicalities of care delivery, judgements and even their own size in determining how best to handle communication interactions.

The visual realities of caring for this client group have on occasions provoked an emotional response from the midwives, which they themselves have felt ill-equipped to deal with as they are endeavouring not to negatively judge the women. These attempts at non-judgement, however, were not found in the study by Schmied *et al*.

(2011) whose findings stated an intolerance towards obese pregnant women, with some of the participants feeling revulsion and disgust. A blame culture surrounding obese women in labour was also expressed in Singleton and Furber's (2014) study.

The midwives in the current study, however, expressed clearly that they try very hard not to negatively judge the women, but are fighting against societal prejudices which are also present within other healthcare settings (Puhl & Brownell, 2003), such as nursing (Brown, 2006). It is believed that exposure to caring for obese patients can increase nurses' negative attitudes towards obese patients (Poon & Tarrant, 2009). Conversely, a study to investigate healthcare professionals' attitudes towards female obese patients discovered that nurses who had direct contact with providing care to this group of women exhibited more positive attitudes than physicians who had less interaction with them (Sikorski *et al*., 2013). Similarly, nurses working on a bariatric nursing ward also strive to provide non-judgemental care, though it is suggested that this could be considered as fatalism of providing care in that it is an expectation of their role (Jeffrey & Kitto, 2006). This, however, is not the finding within this study, and could be supported by the perception that on the whole the participating midwives either self-select or are selected to care for this client group. This finding has not been discovered in other studies (Schmied *et al*., 2011; Knight-Agarwal *et al*., 2014; Singleton & Furber, 2014), and speculatively the researcher suggests the reason behind this selection could be the personal characteristics of the midwives (being caring and compassionate); it is not necessarily related to their own size, but is because they do not want this group – who they perceive to be vulnerable – to be cared for by more judgemental and less empathetic colleagues.

There is an awareness that obstetric colleagues have used language that the women perceive to be upsetting and offensive, and the midwives have had to deal with complaints on the obstetricians' behalf. Participants in the Schmied *et al*. (2011) study also had to respond to complaints made by women and their families regarding offensive language used, specifically calling women fat; however, participants in this current study struggle to use the term obesity because they feel it's a judgemental term. Strong opinions can, however, be pervasive and midwives have struggled to switch off from negative judgements verbalised by colleagues. This is also echoed by healthcare professionals providing care regarding eating disorders to obese patients (Puhl, Latner, King, & Luedicke, 2014).

There is a clear sense in this current study that the midwives (whilst endeavouring not to stigmatise the women) are very aware that obesity is something of a stigmatising issue and they do not wish to contribute by providing judgemental

care. The midwives therefore recognise that this client group can be vulnerable to stigma (Puhl & Brownell, 2003) and they strive not to allow this in their sphere of practice. That this can happen is evident as stigmatisation of obese people has even been found in public health campaigns (Puhl, Peterson, & Leudicke, 2013), and in the views of midwives and healthcare professionals in other studies as previously discussed (Brown, 2006; Merrill & Grassley, 2008; Schmied *et al*., 2011). Some of the midwives with raised BMIs themselves are particularly sensitive about the stigmatising effects being obese can have, and of the judgements of others on their size (Puhl & Heuer, 2009), so do not want the women in their care to have the same experiences as themselves. A study by Knight-Agarwal *et al*. (2016) which investigated obese women's experiences of antenatal care in Australia discovered that societal stigma contributed to the women suffering low self-esteem in their pregnancy. Significantly, the empathy displayed from the midwives in the current study concerning how the stigmatised women may feel has not been found in other studies (Schmied *et al*., 2011; Macleod *et al*., 2012; Knight-Agarwal *et al*., 2014; Singleton & Furber, 2014).

Weight stigma can have negative consequences for psychological health and result in discrimination (Vartanian, Pinkus & Smyth, 2014); and although it has been reported in other healthcare environments and in other healthcare professionals (Brown, 2006; Merrill & Grassley, 2008; Puhl et al., 2013), the researcher is of the opinion that this is not the midwives' intention in this study. Weight stigma, however, is evident in maternity care in the findings of other studies in which women have expressed feelings of being stigmatised during encounters with healthcare professionals (Nyman *et al*., 2010; Furber & McGowan, 2011; Furness *et al*., 2011; Lindhart *et al*., 2013) and thus have experienced a lack of empathy (Lindhart *et al*., 2013). The midwives, however, are essentially resisting the trend of weight stigma, which is believed to be one of the last socially acceptable forms of discrimination (Vartanian *et al*., 2014) and found in all areas of life (Puhl & Heuer, 2009).

Lewis, Thomas, Blood, Castle, and Komesaroff (2011, p.1350) suggest that obesity stigma relates well to Goffman's (1963) conceptual theory of the sources of stigma: 'those whose appearance violates normative cultural aesthetics of beauty and those that demonstrate a weakness of will… offend contemporary cultural norms'. In essence 'the fat body is considered physically deviant because of its visibility' (Lewis *et al*., 2011, p.1350). Lewis *et al*. (2011) would argue that the characterised stigma, in this instance obesity, will be what that person is judged by and not the person themselves.

Obesity discrimination does therefore have a visual component (Lewis *et al*., 2011), which is also evidenced in other areas of healthcare delivery where societal norms for some individuals are not viewed in the same way by others (Burris, 2008). This results in prejudice and stigma (Bayer, 2008). Areas where parallels can be drawn relate to ethnicity, race, physical disabilities, and even in some respects gender (Phelan, Link & Dovidio, 2008). Gender appears to play a role in obesity stigmatisation in that male nurses were thought to hold more negative attitudes towards obese patients than did female nurses (Poon & Tarrant, 2009), though Brown (2006) contends that this view is unclear, and this is supported by Hansson, Rasmussen and Ahlstrom (2011) in their study of GPs and district nurses' encounters with obese patients. It must be acknowledged that all the participants within this current study are female.

Patients whose condition is not necessarily visible, such as being HIV positive, mentally ill or having an intellectual disability, can also be on the receiving end of stigma (Sandelowski, Barroso & Voils, 2009; Henderson *et al*., 2014; While & Clark, 2010). Heintz, DeMucha, Deguzman and Softa (2013, p.303) also contend that urinary incontinence in women can be a stigmatising medical condition that can be further complicated by the patient's gender. They found that stigma was experienced by this group of women in the form of 'micro-aggressions' e.g. impatience from healthcare personnel. This type of stigma has not been exhibited within this current study. However, stigma is evident within healthcare settings, whatever the nature of the source of this discrimination may be (Bayer, 2008). Sikorski *et al*. (2013) believe that stigma within healthcare delivery is not acceptable; and, as a means of reducing obesity stigma, suggest training is required for healthcare professionals to understand the complexities behind weight gain. Heintz *et al*. (2013) also recommend training so that healthcare professionals do not feel discomforted by the patients' medical condition and therefore discredit them by their behaviour, in essence demonstrating prejudice and stigma. Bayer (2008, p.470), however, contends that mobilising stigma into public health campaigns such as to reduce smoking is 'morally defensible' to promote behaviour change. Burris (2008, p.475) argues that stigmatising individuals is cruel and that stigma is a 'harmful phenomenon experienced by vulnerable groups'. More often than not stigma is exhibited and 'used by those with power' (Bayer, 2008, p.470), whereas While and Clark (2010) suggest that stigma present in healthcare settings is a result of organisational failure within the NHS, and that patients should be provided with high quality care, otherwise health inequality will persist.

The midwives in the current study aim to see beyond obesity to the individual and therefore do not utilise their role to stigmatise the women (which will be discussed further under the super-ordinate theme Caring Against All Odds). As previously mentioned, however, this is not necessarily all women's experience of maternal obesity care, and perceived stigmatising encounters have sometimes resulted in women disengaging with the maternity services (Heslehurst *et al*., 2007b) and in the sphere of nursing practice being reluctant to re-engage with healthcare providers even when their health has deteriorated (Drury & Louis, 2002). This discussion therefore clearly supports the provision of non-judgemental care to reduce the stigmatising effects of interactions with healthcare professionals, in the need to ensure optimal healthcare provision.

Size does matter to the midwives as women with BMIs ≥30kg/m^2 have become far more the norm in maternity care in the last few years. This rise in the number of women booking their pregnancies with high BMIs is a direct result of the obesity epidemic (NHS Information Centre, 2009). The study helps illuminate what the midwives perceive to be the extent of the maternity population with BMIs ≥30kg/m^2, 50% of their client base. The Schmied *et al*. (2011) Australian study concurs with the current study, finding a dramatic increase in the level of obesity in women receiving maternity care and that caring for this group of women was now 'common', with one midwife in the study calculating 70% of her caseload was women with BMIs equalling and exceeding 30kg/m^2. Conversely, CMACE's (2010) study collected data only regarding women with BMIs ≥35kg/m^2 and therefore estimated that 4.99% of childbearing women were obese (CMACE/RCOG, 2010). This compares with research to discover the extent of the problem in the North East (Middlesbrough) and North West of England (Liverpool) which indicated the rate to be between 16% and 17.7% (Heslehurst *et al*., 2007a; Kerrigan & Kingdon, 2010). These figures now appear out of date in relation to this study's findings and this is further supported by the National Obesity Forum (2014), who argue that the values for the general population in the United Kingdom have been very much underestimated. However. at the conclusion of writing up this thesis the first maternity statistics were published regarding women's BMI measurement at their booking appointment (HSCIC, 2016). These statistics revealed that in the North of England 22% of women were obese and 29% were overweight; however what is worth noting is that 32% of the data collected could not be utilised for this geographical area and that the calculation utilised to assess the overweight category included 30kg/m^2 (25-30kg/m^2) (HSCIC, 2016), whereas the WHO's definition of obesity commences at this figure (WHO,

2004). Accurate figures for the level of obesity in the maternity population are therefore still awaited.

The maternity population's size has increased not only in the sense that there are more obese pregnant women, but that it is the midwives' perception that this client group is also becoming physically larger. At a conference the author attended, Quenby (2013) delivered a case study about a pregnant woman with a BMI of 82kg/m^2, who weighed 240kgs (529lbs). Quenby detailed the challenges and difficulties that the obstetric team faced in facilitating safe intrapartum care and ultimately the safe delivery of the woman's newborn infant. Two other hospitals refused to provide care, but Quenby accepted the referral and acknowledged the attendant difficulties head on. As previously mentioned CMACE (2010) stated that 4.99% of women who accessed the maternity services in the UK had a BMI ≥35kg/m^2. It was further discovered that 2.01% of women had BMIs ≥40kg/m^2 and 0.19% of women had BMIs ≥50kg/m^2. It is apparent from the current study that midwives from a sample of only sixteen are caring for women with BMIs in the 50s (kg/m^2) and this suggests that the number of women with extremely high BMIs is increasing.

A finding in the study was the midwives' perception that women with BMIs of 30kg/m^2 appear to look of normal size and thereby are being potentially viewed as low risk when their BMI measurement puts them in a high risk category. This finding is supported by Schmied *et al*. (2011, p.426) who agree that 'what was considered obese is now accepted as normal weight because it is so common'. This normalising of obesity was felt by the researchers to reflect that it had become socially acceptable to be obese. This was further supported by Knight-Agarwal *et al*. (2014), and re-enforced by Singleton and Furber's (2014) findings that society had accepted obesity, thus normalising rather than tackling it as an issue. Maternity care delivery was thought by some of the midwives in their study to reflect this ethos, and therefore added further weight to their argument that the maternity services should just accept and adapt the care required for this client group's 'normalisation of the abnormal' (Singleton & Furber, 2014, p.107). The perception of midwives in the current study is that most women with an obesity classification (BMI) in the low 30s (kg/m^2) look normal to them, thus confirming that there has been an undoubted change in what is considered to be normal size. The researcher also considers that because a midwife's ethos is to promote normality (Raynor, Mander & Marshall, 2014) there is also a desire for the midwives to treat the women as low risk because to them they look normal and low risk. Knight-Agarwal *et al*. (2014), however, demur and argue that it is visually obvious if a woman is obese and that weighing them to confirm this is a waste of time.

The midwives' changing visual perception of obesity within the study is however supported in another setting by an American study by Hansen, Duncan, Taransenko, Yan and Zhang (2014), who found that there has been a significant increase in parents' underestimation of their children's weight. Hansen and colleagues (2014) determined, from data sets of gathered information which asked parents their perception of their overweight child's weight, that in 1988-1994 78% of parents of an overweight boy and 61% of an overweight girl felt their child was about the right weight. Data collected from 2005-2010 indicated that these figures had significantly increased to 83% for boys and 78% for girls (Hansen *et al*., 2014). In fact, one in three children in the United States are believed to be overweight or obese (Doyle, 2014). Thus the normalising of obesity within the maternity services is mirroring societal influences on what encompasses normal size perception. Essentially the midwives feel that more women are becoming obese and, because there are so many of them, they see themselves as normal size. Therefore midwifery practice will need to ensure that women identified as obese by their BMI measurement are treated as such and are not normalised by maternity care reflecting societal norms, but rather are classified by their risk indicators for their level of obesity.

The size of the midwife can therefore have an impact on the encounters between the midwives and the women. Midwives who are overweight or obese and use humour, empathy and their own size to communicate with the women do not envisage that they have any communication issues with this client group. This was not totally endorsed by Schmied *et al*. (2011), who found a mixed response to midwives with raised BMIs communicating with the women: there were positives, but also embarrassment about discussing weight issues when the midwife was also overweight. This sense of discomfort with overweight midwives was also found by Knight-Agarwal *et al*. (2014). Wilkinson *et al*. (2013), however, discovered that healthcare professionals with raised BMIs themselves were more willing to engage with offering weight management advice, than those with normal range BMIs. In this current study, midwives with normal range BMIs felt more of a sense of disquiet than their overweight colleagues, and felt that they could be construed as lecturing the women. Midwives of small stature at times struggled logistically to care for these clients, a finding which is also endorsed by Knight-Agarwal *et al*. (2014). A study investigating overweight nurses' interactions with overweight patients in the UK found that they utilised self-disclosure about their own size, and that this enabled them to provide an empathetic connection with their patients (Aranda & McGreevy, 2012). Conversely, it was found in the Brown *et al*. (2006) literature review that

nurses with raised BMIs themselves held negative attitudes towards obese patients, whereas Poon and Tarrant (2006) discerned that those with normal range BMIs possessed more negative feelings towards obese patients. Clearly, there are quite contradictory views as to whether the size of the healthcare professional has an impact on providing care for obese individuals.

Presently there are no figures for the number of midwives who are considered to be overweight and obese in the UK. A survey conducted on nurses and midwives in Australia, New Zealand and the UK discovered that 61.87% of them were outside the normal weight range. This group therefore had a higher prevalence of obesity and overweight than the general population; 4996 participants responded to the cross-sectional survey, of which 1074 were based in the UK (Bogossian, Hepworth, Gibbons, Benefer, & Turner, 2012). In this current study, as midwives with high BMIs are not considered to be good role models for health promotion by midwives with normal range BMIs, these figures represent a cause for concern. Overweight nurses themselves considered that they could be viewed as hypocrites in delivering health promotion advice in Aranda and McGreevy's (2012) study. From the patients' viewpoint, 600 overweight and obese patients who participated in a survey in the USA to ascertain the level of trust they had in their physician, stated that they trusted dietary advice more if their physician had a raised BMI themselves (Bleich, Gudzune, Bennett, Jarlenski, & Cooper, 2013), though the sample did not represent the pregnant maternity population. A qualitative study in the UK of the experiences of women who are obese and pregnant did not mention anything about the midwives' size (Furber & McGowan, 2011). It is therefore debatable whether the size of the midwife is important to the women in their care, but it can be to the midwives themselves.

The suitability of obese healthcare professionals to act as health promotion role models (Pett, 2010; Aranda & McGeevy, 2012) and the appropriateness of obese midwives to care for obese women have been questioned by the midwifery press, obesity conferences and in the media generally (Mueller, 2009). Media speculation first brought the matter to public attention in the USA following President Obama appointing an overweight Dr Regina Benjamin as the American Surgeon General (Mueller, 2009). The question 'Should obese women be advised by obese health professionals?' was put to the panel at a conference (Obesity in Childbirth, 2009; Pett, 2010) which the researcher attended. The panel's consensus response was that it should make no difference, with Professor Quenby backing this up by stating that she had just employed an overweight dietitian (2009). However, the current study provides evidence that midwives contradict this viewpoint.

There is concern from the current study that obese midwives may struggle to cope with the physical demands of the job, which was also a speculative finding in the study of Bogossian *et al*. (2012). This is quite a hot topic because of the social and medical stigma surrounding obesity (Vartanian *et al*., 2014; Puhl & Heuer, 2009), and the researcher's own perception is that obesity is not a determinant for excluding potential candidates from midwifery training. More recently the Pennine Acute Hospitals NHS Trust (NICE, 2011) conducted an audit to help them to develop a model for detecting, assessing and managing overweight and obese staff. The audit indicated that out of 300 staff records only 160 recorded weight measurements, there was no plan for an obesity strategy for staff, there was a reluctance to tackle or address obesity, and frequently Trust staff with a BMI ≥30kg/ m^2 had not had their disease (obesity) addressed because of extra work involved in referring them to their GP or organising a care pathway. Ultimately they discovered that obesity is not approached by clinicians the same way as other chronic conditions and therefore a culture change in the profession was needed. The Pennine Acute Hospitals NHS Trust audit (NICE, 2011) further supports the view that a more robust system needs to be in place to support staff who are overweight and obese.

The perception by the midwives that most women were very embarrassed and apologetic about the size of their bodies was also endorsed in Singleton and Furber's (2014) study. However, concrete evidence was further provided by the women themselves in a number of studies both within and outside of maternity care (Nyman *et al.,* 2010; Furber & McGowan, 2011; Lindhart *et al*., 2013; Merrill & Grassley, 2008).

The midwives in this current study further view this client group as being emotionally vulnerable and this is supported by a qualitative UK study of the experiences of women who are obese and pregnant, who also felt devastated and humiliated by encounters with midwives, when the women had not realised the risks of being obese in pregnancy, nor the difficulties that the midwives had in performing clinical care, specifically trying to monitor the fetal heart rate (Furber & McGowan, 2011). This perception of the women's emotional vulnerability, suggested by the midwives because of the women's behaviour, is not without foundation: one example being women denigrating themselves for not realising the risks their weight was going to impose on them and their fetus before they became pregnant. The midwives are conscious of not wanting to cause any further upset to them by their actions when delivering care.

The midwives therefore acknowledge that the women exhibit a noticeable lack of awareness of the inherent risk factors of being obese and pregnant when they book their care with the maternity services. Their reactions to these risks being communicated to them are therefore diverse.

One group are upset at their ignorance of the risks prior to becoming pregnant, whereas the other group clearly do not acknowledge that having a high BMI is a problem for them, and this is very much supported by the findings in the Knight-Agarwal *et al*. (2014) study. That some women are very aware of their size is confirmed in Singleton and Furber's (2014) study, and some women's displays of embarrassment and of being self-conscious are evidence of this. The women in Furber and McGowan's (2011) study, however, did not acknowledge any lack of knowledge of the risks and how this was communicated to them, but focused more on their clinical encounters with midwives and obstetricians. This, in effect, is the crux of the problem that the midwives in the current study are facing: that the women's reactions to being advised that they have a BMI ≥30kg/m^2, and being informed of the risk implications, are wholly unpredictable. Some of the women are visibly upset, conversely others can border on becoming aggressive because they do not have any perception or belief that they are obese. Extreme reactions have resulted in women transferring their care to another maternity unit (Heslehurst *et al*., 2007b).

In summary ultimately size does prove to matter in this study, because caring for women with BMIs ≥30kg/m^2 has become the norm in midwifery practice: increasing numbers of women have raised BMIs and extreme BMIs are more common. Of note, midwives are visually perceiving women with BMI measurements in the low 30s kg/m^2 to be of normal size. It is apparent that the majority of midwives who are directly caring for the women are at pains to ensure that they do not stigmatise them in any way, however, they are aware that stigmatising attitudes can be pervasive within healthcare settings. Other findings from this study are focused on the perception amongst the midwives that women are often ignorant of the risk factors of being obese when becoming pregnant, and that communicating this information can produce unpredictable reactions from the women. The size of the midwife has implications for care delivery both from the aspect of communication and the performance of clinical skills (small stature). However, there is concern that midwives with raised BMIs may physically struggle to practise and are not thought to be good health promotion role models. It was also found that midwives of normal weight feel that they could be perceived as lecturing the women when communicating with them. It is apparent that similarities from other studies support

the above findings; however, it is evident that new findings have indeed been derived in this study.

5.4 Super-Ordinate Theme: That Sinking Feeling

The super-ordinate theme of 'That Sinking Feeling' consists of the emergent themes found in table 5.4. The metaphor relates to the midwives' regular feelings of frustration and concern at caring for this client group, to the extent that they sometimes experienced an overwhelming sense of anxiety and stress which culminated in the sense of 'That Sinking Feeling'.

Table 5.4: Super-ordinate theme: That sinking feeling

Emergent themes making up super-ordinate theme	How many participants mentioned theme	How many times theme was referred to by participants
Midwives' frustrations	13	28
Midwives' anxieties	10	17

5.4.1 Midwives' frustrations

Midwives' frustrations take many forms in this study but the frustrations are not levelled towards the women in their care, but against a multitude of perceived difficulties: from the lack of appropriately sized equipment and resources to support care delivery, to the immense time pressures on midwives to see more women, but with no expansion of clinic availability. There is also a requirement to provide more information than before due to the necessity to inform this client group of their risks, and a need to chase down appropriate equipment. Other difficulties derive from obstetricians who continually ask midwives why they are referring women with BMIs ≥30kg/m^2 to them antenatally, when some have been involved in the policy development; dealing with complaints about obstetricians' insensitive communication; the difficulty of trying to continuously monitor (EFM) the FHR during labour, particularly when a woman's cervix does not allow for internal FHR monitoring and the midwives consequently have to hold the external transducer (CTG) in place for considerable lengths of time; and ultimately from the midwives feeling powerless to help this client group, particularly when they cannot even advise them on how much weight they should gain in pregnancy. Essentially, the midwives' workload has greatly expanded in its requirements to care for this growing client group, but the midwives do not feel supported to care for them in terms of time requirements, equipment, communication strategies and personnel. (Personnel requirements were discussed under the super-ordinate theme Negative Impact,

where it was felt that more staff are required when there are difficulties in monitoring the FHR in labour, assisting women into the lithotomy position, and transferring them to theatres.)

> Ivy Unfortunately in the way the NHS is now, it's like very limited resources, very limited about what midwives can actually do in the timeframe they've got but now the expectation that even with what you've got you've still got to cover all these bases and still you know, use every message you can to get ladies to be more aware of them and you know, look after themselves and decrease the risks while they're pregnant but it's not that easy.

> Lily But there is an increase in the clinic numbers and it puts pressure on. The clinics aren't expanding. There's no bigger time frame. Still… instead of it being like 30 women per clinic you have now 40 women per clinic and still the same amount of time slots and so the women are having to wait longer.

> Ivy We were gonna have to take her to theatre but we didn't have any flowtrons, even on the general side, we phoned main theatre and they didn't have equipment big enough to cope with her legs. T.E.D. stockings didn't fit her legs because when we did the measurements nothing fit her so we had to get the consultant to come in and specifically go and see her on an individual basis to say we would normally do X, Y and Z, in your case we can't because none of our equipment fits you. So that was a bit awkward and it made the lady feel really… you know, she had enough problems having fetal heart issues but the fact that she was so big was adding other things. It really upset her.

> Laura I could not pick up that fetal heart with external monitoring and I had to put that fetal scalp electrode on about five times which was so difficult because she also liked to be upright and she wanted to get on the bed pan a lot and she was very pro-active but it would pull it off and it was so frustrating and I must admit, I really did hurt my hand that day.

> Zoe But I do feel powerless at times to be able to help women because I don't think there's a lot backing us up.

5.4.2 Midwives' anxieties

The anxieties that the midwives feel in caring for this client group made the researcher herself feel anxious at times because their experiences were so emotionally powerful. At times they are quite fearful and apprehensive of what the outcomes are going to be, particularly when they are unable to continuously electronically monitor the FHR or in some cases locate the FHR. Their anxieties escalate when they are struggling to determine the FHR during intrapartum care, and this is accentuated when they are unable to find the FHR when an obese woman presents in established labour approaching second stage; this sense of anxiety is sometimes compounded by the fact that visually the midwives cannot determine the women's gestation.

An inability to monitor the FHR has implications not only for ensuring fetal wellbeing but also for the midwife who is only too aware that she is accountable for

that care delivery, and if the FHR is not heard and problems ensue there is the potential for litigation. Midwives' 'hearts did sink' at the prospect of not being able to monitor the FHR both antenatally and in labour, although it must be stressed that this was not personalised to the women in their care, but was derived from previous experience of caring for women with raised BMIs.

In their communication, the midwives worry about not upsetting or causing offence to women with raised BMIs, and in particular those midwives who have normal range BMIs are very conscious of it and anxious not to be perceived as lecturing or criticising the women.

There is an overriding sense of concern from the midwives for this client group, with an awareness that if they were to unintentionally cause offence, it could result in a complaint. There is a very real sense that the midwives do at times have a feeling of powerlessness in caring for this client group, as there is not a lot they can do for the women as their initial encounter is when they are already pregnant with a raised BMI and all its attendant risk factors in pregnancy. Therefore the midwives' anxiety can commence as early as the booking appointment when caring for this client group.

The midwives also worry about the risks the women may face in labour, not just in the hospital setting, but also within the home environment as some women with BMIs >40kg/m^2 are choosing to have a homebirth against medical advice. Midwives experience a great deal of apprehension at the prospect of providing care for this client group in the home setting, and their anxiety increases as the midwives who are on call for the community become more and more aware of the approaching due date when the women may birth their babies, and openly express the hope that it is not them on call that day. There is a real sense this situation causes much additional stress to the midwives, demonstrated by one participant who strongly expressed that she would find it very difficult to cope with and would have to leave the profession if a mother or baby died during a homebirth.

> Zoe You don't know what you're feeling because it's just all mass and you, you know, all the elements of the examination are hard so palpation you're thinking is that a head, is that a head, is that head… I said right I'm just going to get a monitor, 'cause I couldn't hear anything with a Sonicaid… I thought I'll get a monitor, it's got a bigger transducer. So as I went out the room to get that, I came back in and she was clearly pushing and I was thinking (sharp intake of breath) what's she gonna deliver here? Is it breech… what's happening? You know, I didn't have any idea about… I couldn't get a heart rate or nothing and she just delivered this baby and it was fine but you know, for like the 3 or 4 minutes that that was going on I had my heart in my mouth thinking by the grace of God make this be OK because I thought well I can't… it's not a medical emergency just because you don't know what's

happening ‘cause I do have a trust in nature to get it fairly right and it had laboured that woman well.

Julie When you are on labour ward and you are struggling and it matters. It matters so much now with litigation, that you’ve got to hear that fetal heart and you can’t hear it and a woman’s in labour and a woman wants to be wherever she wants to be… the litigation side of it is, if you can’t guarantee what the fetal heart is, ultimately you are responsible for the case.

Laura When the FSE [fetal scalp electrode] comes off and I’ve just literally put it on! I can see it go off on the CTG and then it’s there on the bed and my heart sank every time and it’s hard work.

Kerry The main issue antenatally is listening in with the CTG monitor. Your heart sinks if you’re asked to do a trace sometimes because you think oh gosh, that’s not gonna be easy.

Ava I’ve got a lady on the books at the moment who I know very well actually and she is a booked home birth against advice. … her BMI’s over forty now… you’re going out there and you’re just hoping that she’ll just have it and it’ll be all fine and we’re making a fuss about nothing, do you know what I mean? But if, you know, it goes wrong… if she has a shoulder dystocia or if she has a PPH,… she’s made that informed decision but I’ve got to live with it if it’s me, if something goes really badly wrong and I sort of worry that if you have a really severe PPH at home or shoulder dystocia you can’t deliver… that would probably be the breaking point for me, that would probably be me finished with it. You know, I could see me, I can’t do this anymore because every time you go out, that’s what you’d be thinking of. Oh my God, what if, what if, what if….

Beth You don’t want to cause offence. You don’t want to embarrass somebody and I think midwives and women can form a very special trusting relationship and you don’t want to go over that line that makes them feel uncomfortable with that.

Grace I do worry about how they feel.

5.4.3 That Sinking Feeling: Discussion

This super-ordinate theme provides an insight into how midwives feel when caring for women with raised BMIs. Similarly to Negative Impact it provides an indication of the dispiriting feelings that can develop and which can be experienced in providing care for this client group. The overriding finding from this super-ordinate theme is that it can often be a more frustrating, worrying, anxiety-inducing, and stressful struggle for the midwives when delivering care for women with BMIs ≥30kg/m^2, than for women within normal range BMIs.

Midwives do at times feel a ‘sinking feeling’ at the prospect of caring for women with raised BMIs because they know from previous experiences the difficulties that are likely to ensue. These difficulties can make the midwife feel frustrated, but the overriding issue is one of general anxiety and increased stress levels given that the midwife is accountable for the women in her care (NMC, 2012). If the midwife is

unable to auscultate the FHR and there is a negative outcome, she is only too aware that it could result in her professional practice being called into question by the NMC and litigation from the parents (Marshall *et al*., 2014). But the midwives' anxiety is also levelled towards their concern for the risks the women can face during labour.

This phenomenon of a sinking feeling has previously been identified in general medical practice (O'Dowd, 1988) under the phrase 'heart sinking', to encapsulate those patients that made GPs feel frustrated, overwhelmed, stressed and exasperated by their behaviour. It has also been utilised to express how hopeless patients suffering from terminal cancer can feel (Sachs *et al*., 2013), and to provide an impetus for a plastic surgeon to improve future surgeries following experiencing this feeling when operating (Taylor, 2007). Singleton and Furber (2014) have also used this concept to describe how midwives felt about their encounters with the women during intrapartum care delivery, and as with the midwives in this current study they lean towards O'Dowd's (1988) definition. In contrast, Schmied *et al*. (2011, p.428) used the metaphor 'not waving but drowning' to represent the rapid and profound impact that the obesity epidemic had on maternity services in Australia, and support the study's findings on the effect that the lack of resources and equipment and difficulties communicating with a stigmatised group can have on midwives and other healthcare professionals. Conversely, stress was experienced by the midwives in the Knight-Agarwal *et al*. (2014, p.140) study from having to deal with the 'psychological fall out of obesity being addressed in the wrong way' by obstetricians, and by frustration that media health promotion messages were focused on what women should not eat in pregnancy to avoid listeriosis rather than what women should eat in pregnancy to maintain a normal weight. The midwives in the current study feel frustrated at having to spend time defusing complaints about other health professionals' insensitive communication, and experience stress in their own endeavours to develop and deliver their own communication strategies to ensure they do not cause offence when dealing with these complaints. (Issues of communicating with this client group are discussed under the Catch 22 super-ordinate theme.)

The midwives detail anxiety and concern under the 'sinking feeling' theme within this study, and figure 5.1 represents the areas where anxiety, worry and stress are most pervasive in the encounters of the midwives and this client group. Due to the changing client demographics of the maternity services population inevitably mirroring the obesity epidemic (CMACE, 2010), caring for women with BMIs ≥30kg/m^2 will become ever more prevalent and therefore will continue to impact on the

stress levels of midwives. This is of concern as NHS staff are believed to be almost four times more likely to be absent from work with stress compared with other occupations (Clews and Ford, 2009). Jordan, Fenwick, Slavin, Sidebatham and Gamble (2013, p.125) in their study which investigated the causes of 'burnout' in Australian midwives – that is, 'a condition that arises when prolonged stress leads to a loss of energy and exhaustion… characteristically associated with a loss of work place involvement, lack of motivation and engagement, and increasing feelings of disparagement and cynicism' – strongly suggest that workplace stress can lead to burnout, causing a reduced work force due to unavoidable sickness absence. However, they did find very low levels of burnout related to caring for clients (Jordan *et al*., 2013), a different finding to that of another study conducted in Denmark (Borritz *et al*., 2006) which found that compared to other occupational groups, midwives experienced the highest level of burnout related to client care delivery. Of note is that the study from Denmark was conducted prior to the obesity epidemic and that a limitation of the Jordan *et al*. (2013) study is that only 58 midwives responded to the survey. There is therefore conflicting evidence to support a theory that caring for this client group will lead to burnout for the midwives. This study, however, suggests that there is cause for concern that the sinking feeling experienced by many midwives caring for this client group with its resultant levels of stress and anxiety could have a damaging effect on the future midwifery workforce.

In summary, caring for this client group can negatively affect midwives' psychological wellbeing. The midwives are aware that they are dealing with a group of women who are obese and can be therefore viewed as a stigmatised group in society, and they do not want to contribute to this stigmatisation. Stress and anxiety can be experienced by the midwives during all encounters with the women. The findings in 'That Sinking Feeling' are an undoubted cause for concern for midwives' welfare because of the feelings that are engendered when caring for this client group and this is uniquely referenced by figure 5.1.

Figure 5.1: A representation of the determinants of the stress that midwives feel caring for obese women during the childbirth continuum

'Booking'- unpredictable response to BMI measurement and risk indicators.

Time resource pressures.

Aware this client group could be potentially stigmatised in society, so strive not to cause offence or upset, therefore anxious and embarrassed about communicating with this client group (midwives with normal range BMIs anxious about being perceived as lecturing/criticising).

Anxious not wanting to judge this client group, but negative judgements are pervasive around them.

Anxious about impending homebirths.

Worry about homebirth.

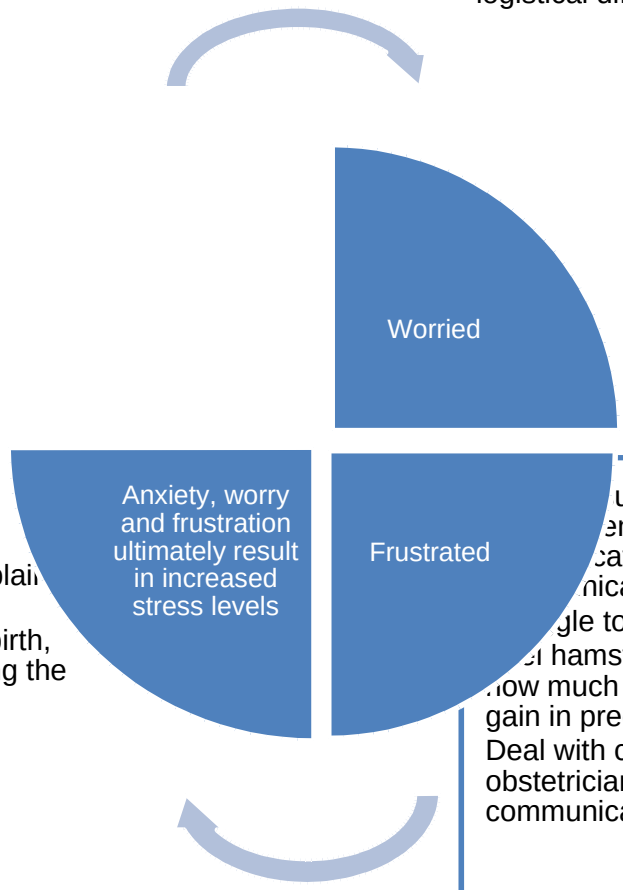
Worry about not being able to perform clinical care e.g. monitoing FH.

Worry about the risks to the women, particularly during labour.

Worry about other care delivery being neglected as focusing on determining and monitoring FH.

Worry about how the women are feeling, as perceived to be vulnerable and embarrassed when receiving care.

Worry about manual handling and logistical difficulties.



Consequently fearful of complai and litigation.

If adverse outcome at homebirth, could lead to midwives leaving the profession.

upported from staffing ents, resources, equipment cationally to care for and nicate with this client group.

gle to monitor FH.

l hamstrung, no guidance on ow much weight women should gain in pregnancy.

Deal with complaints about obstetricians' insensitive communication.

5.5 Super-Ordinate Theme: Catch 22

This super-ordinate theme of Catch 22 is representative of how the midwives feel about their communication with this client group. The researcher's working definition of the metaphor Catch 22 is that it encapsulates situations (encounters between the women and the midwives) where actions by individuals (midwives) may lead to trouble or no resolution, in essence a 'no-win' position (Collins English Dictionary, 2015). The theme mainly centres on the communication of risk, whether it's discussing the associated risks of raised BMIs, the possibility of the women being offended, or the inherent added difficulties of a woman with a high BMI requesting a homebirth. The emergent themes that make up Catch 22 can be found in table 5.5.

Table 5.5: Super-ordinate theme: Catch 22

Emergent themes making up super-ordinate theme	How many participants mentioned theme	How many times theme was referred to by participants
Issues of communication	11	23
Communicating risks	8	11
Associated risks	6	13
Homebirth	5	7
Women are offended by communication/care	5	5

5.5.1 Issues of communication

It became very apparent in the study that there are issues with communicating with this client group from the midwives' perspective. This commences at the booking appointment, where the midwives are required to determine the women's BMI measurements and inform them of the risks to their pregnancy. The midwives are very aware that this group of women who are considered obese can be stigmatised in society and therefore they endeavour to provide sensitive communication. In order to ensure there is no cause for offence the communication with this client group can become very protracted during antenatal appointments, with the real issue behind the raised BMI (obesity) very often being skirted.

The response from the women on being informed that they have raised BMIs can be unpredictable, and the midwives have found some women to be shocked and upset that they have met the threshold of obesity with BMIs of 30, 31, 32kg/m^2; unaware and therefore distressed at the risk factors associated with their raised BMI. There can also be aggression and denial from some women that they are

considered to be in a risk category because of their weight, because they consider their weight to be normalised in society.

In adhering to Trust policies regarding this client group midwives have to refer women for Glucose Tolerance Tests (GTTs), to obstetricians for consultant/shared care and dietitians for nutritional advice; unfortunately, however, there have been experiences of the midwives having to contend with offended clients when they have attempted to explain why these referrals are necessary.

During situations where clinical care is difficult to perform e.g. abdominal palpations or listening to the FH rate, the midwives struggle to articulate the true cause of these difficulties (the women's size), and this is evidenced when women ask them directly, 'Is it because of my size?', and they reply 'No' and give another explanation such as, 'It's the way the baby's lying'. There is a real sense of unease amongst the midwives about not being truthful in their communication with the women, but they rationalise it by suggesting that they do not want to cause the women to feel stigmatised or distressed, or to experience guilt. Some midwives find the issue of discussing obesity embarrassing and difficult, particularly if they are of normal range BMIs themselves, as they do not want to be perceived by the women to be criticising or lecturing them. However, the underlying difficulty that all the midwives face is that they want to build a trusting relationship with the women; and they are finding it very difficult to do so because they want to be more direct and honest in their communication, but do not have the communication tools to allow them to achieve this without their fear of causing offence being realised in their encounters with this client group. This fear of complaint is not without foundation as some midwives, in attempting to explain the risks and the additional investigations required, have been on the receiving end of a complaint from the women.

This is further supported by the experience that midwives have of some of their obstetric colleagues' communication with this client group. This can be more direct and at times blunt which has subsequently caused offence and complaints, which the midwives themselves have had to deal with. They therefore come up with their own communication strategies so they do not compound the complaint. Whilst the midwives may want to improve their communication skills they have no discernible way of achieving this at present, and therefore do their best in what they consider to be difficult circumstances:

> Mia I mean, I'm thinking antenatally some of them don't like to be… I often feel a bit embarrassed talking about obesity, sort of handing them these things you think, 'Oh gosh, there's that word again' sort of thing, 'cause it does have a stigma with it doesn't it and to be honest, in my experience, to have a low BMI you've got to be like a stick really haven't you?

Laura You have to take the time to discuss with people why you're putting them for shared care and you have to be really sensitive.

Beth They know we're only trying to help but you're trying to do it without… you don't want to cause offense. You don't want to embarrass somebody and you don't want to make them feel… I think midwives and women can form a very special trusting relationship and you don't want to go over that line that makes them feel uncomfortable with that. So you've got to be careful in what you say in the way you word it and make them, you know, sort of, you want to sort of boost their dignity and make sure you respect them but you don't wanna fluff over it as well. …but it's trying to find that line that you're not embarrassing somebody and you're not making them feel more self-conscious than they already feel. So I think it's a really hard subject.

Cerys I know some of them are really embarrassed, you know, because if you can't hear the fetal heart straight away they think 'It's because of my weight' and I say look, you know, I say baby's curled up.

5.5.2 Communicating risks

The area which appears to cause the most communication issues for midwives is centred on communicating the risk factors to the women. This commences at the booking appointment, where the women's risk is categorised by the extent of their BMI. The information delivery to the women is focused on their BMI measurement and findings in this study as previously mentioned indicate that the term obesity is not uttered by the midwives when communicating with this client group. The midwives find this aspect of informing the women of their risk factors very daunting, particularly when this is the first time that they have realised that their BMI is recorded as ≥30kg/m^2, and that because of their size there are associated risks in pregnancy and labour to both themselves and their fetuses. As mentioned previously (under communication issues), the women's reaction can be unpredictable; and that specifically relating to the risk factors, the midwives' perception is that some women really do not want to be informed of the risks.

Some of the midwives in the study have a 'proforma' to fill in when they meet with a client with a BMI ≥30kg/m^2; they find this easier when engaging with the women because they can use an impersonal tick list to gather information with the women, and to visibly demonstrate where their BMI places them in terms of risk categories and the referral/care pathways required. The midwives are also conscious that they do not want the women to feel a sense of guilt because they have raised BMIs, because there is nothing the women can do apart from adhering to the recommended calorie intake for all pregnant women and to be vigilant of the risks. Essentially the women cannot reduce their risk factors by dieting in pregnancy because that is not advocated: as for all pregnant women, a 2000 calorie intake is

recommended daily, increasing to 2200 calories for the last three months of pregnancy (Venter, 2010). This situation is compounded by the fact that midwives do not have any evidence-based information to give to women on how much weight they can put on in pregnancy and they therefore can feel frustrated.

The midwives value providing women with written information on the risks, but this still does not deal with the underlying problem of how to communicate with them effectively without causing offence or making them feel guilty. Ultimately, what makes it difficult for the midwives to promote detailed discussion of the risk factors of being pregnant with a BMI ≥30kg/m^2 with the women in this study is that the women were unaware before they become pregnant that because of their size they would put both themselves and their baby at risk in this pregnancy:

> Ava You do their height, their weight and work out the BMI and then that obviously starts indicating a pathway because if the BMI's over thirty, they need a glucose tolerance test, you help them about the risk factors, you know and a few of them don't take it very well, you know. You try and be as nice as you can about it but you've sort of got to broach it but they don't really wanna hear it, they don't really wanna hear it. They don't wanna hear what the risks are.
>
> Kerry So you do point out the health risks but you have to just try and do it sensitively so you're not hurting their feelings.
>
> ZoeThe first thing they'll say to us is what can I do and our answer is nothing. And the other thing, which I find very difficult is that they'll say well how much weight should I gain? And we don't have those limits anymore. We don't weigh women more than their BMI so when a woman will say well how much is a healthy gain, I'm like well you know, randomly it's about sort of two, some people gain up to four stone and they're like but what's healthy and I'm like well let's see, let's just see because there's nothing… we're recognising the woman's at risk. We're not saying anything much about it.
>
> Grace You've also got to, in every single case, you have to give them the information to make informed choices but sometimes you give them a guilt feeling as well because they know that you can't palpate the baby as well in some situations or you know, we talk about the risk that your baby could be big, your baby could be small and we're almost, you know, saying, these are the things that you can cause and it's almost like saying this is… these are the things that could happen and it's because your BMI is raised.

5.5.3 Associated risks

The associated risks of becoming pregnant with a BMI ≥30kg/m^2 are numerous, as discussed in chapter 1, and midwives determine women's level of risk depending on how high the women's BMIs are. They are, however, finding it difficult to discuss risk factors with women whom they consider to be visibly not obese, but who have BMIs just over 30kg/m^2, amongst whom are women who do not consider themselves to be obese and who are shocked to find themselves in this risk category. The associated

risks that midwives are now having to consider more often are related to manual handling and tissue viability, of which tissue viability is a new area for risk consideration. It is obvious to the midwives that caring for women with BMIs ≥30kg/m^2 is different to caring for women with normal range BMIs because of the risk determinants that are identified for this client group:

> Zoe The poor woman is in that position whether she likes it or not and my heart goes out to somebody who maybe is not aware that they've got a risk factor from this but I do think the troubling thing that I have is a woman's self-confidence can be really knocked by being of a slightly higher BMI, you know, somebody who's a BMI of 30, 31, 32 could look, well you know, fairly normal but they are automatically put into a risk factor group now when they never used to be.

> Julie It's a new risk area and trying to engage midwives to appreciate that and the difficulty for me is that a BMI of 30 is so common nowadays. I'm trying to get midwives to understand how they've got to consider tissue viability, manual handling for what they consider to be ordinary women.

> Fleur We have to circle high or low risk so as soon as we see in the notes that they are a high BMI that's an automatically high risk category then you know, but I guess that's more prevalent for when they go to labour ward really 'cause they have a criteria then. If they're a raised BMI then they have to be monitored and they have to have a cannula in, you know. Puts them in a higher risk category.

> Kerry On labour ward and on the antenatal and postnatal ward obviously with BMI over 30 and we tick it as one of the boxes that puts them at more high risk of all the associated problems with obesity.

5.5.4 Homebirth

Homebirth is an emotive issue for the participants with regard to this client group. There is added complexity surrounding the issue of homebirth for this identified high risk group as the midwives within their transcripts refer to women who chose this as having BMIs >40kg/m^2. One of the problems is that the midwives do not feel that women with this obesity status should be birthing their babies in their home environment due to the inherent risks identified with this level of obesity, and their hospital policies support this view.

Communicating to women with raised BMIs who request a homebirth that it is not really advocated is, however, difficult for midwives. The midwives feel in an uncomfortable position as they do not want to be perceived as emphatically saying they would advise against it, as they do not want their relationship with the women to be adversely affected. They are relieved when they can refer this group of women to their obstetric colleagues who inform women who wish to pursue this route that they would be going against medical advice. Specific to the midwives' role, however, is that care has to be provided in whatever environment women choose to birth their

babies, even if this is against obstetric advice. This recurring scenario inevitably leads to a supervisor of midwives becoming involved to mediate and ensure that the women are aware of the risks and that they are making an informed decision about choosing a homebirth.

Midwives are ultimately placed in an invidious position where they have to provide care for women in an environment that does not support it. This is a major concern, and causes the midwives to be very anxious of adverse outcomes occurring as previously discussed under the theme of ‘Midwives' anxieties’.

Homebirth is a complex issue as it encapsulates women’s choice; and whilst the midwives provide care, it is in an environment they ideally would not choose and there is a subsequent increase in midwives’ levels of anxiety, to such an extent that they would consider leaving the profession if things went wrong:

> Zoe I had a lady who asked for a home birth and I said well look, you know, we support you in whatever you choose to do but I suggest you speak to the doctors about this. They should be the ones to advise you. And they appropriately advised her against it and she accepted that but I didn’t want to be the one to say absolutely, categorically not.

> Grace I went out to see a lady as the supervisor of midwives a couple of weeks ago who wants a home birth and her BMI is over 40… She wanted a home birth and even though the consultant said you know, not suitable for homebirth, you’ve then got to look at your duty of care, you know, informed choice, but at the same time you’ve got to respect that woman’s wishes.

5.5.5 Women are offended by communication

Despite the midwives endeavouring to provide sensitive communication and information to this client group, women are offended on occasions. This can sometimes be those women who do not consider themselves obese but who are distinguished by being put in a risk category, and referred for glucose tolerance testing and for shared care. When offence is felt and demonstrated by the women, the midwives take considerable time to diffuse the situation.

Midwives are also aware that their obstetric colleagues can sometimes be more direct with their communication, resulting in complaints from the women. They are therefore more hesitant in attempting to be as direct in communicating with this client group. Midwives receive complaints just for explaining the care pathway required for women with raised BMIs, without directly expressing that the women are overweight or obese. The midwives endeavour to relate information about care pathways and risks by focusing on the women’s BMI measurements and not on obesity itself. This demonstrates that communicating with this client group can be challenging with unpredictable consequences for the midwives, sometimes causing

them to feel upset when they believe that they have attempted to communicate to the best of their ability.

Midwives do go to considerable lengths to avoid causing offence and most women appear to appreciate this. However, the lengths that midwives are prepared to go in not causing offence could be perceived in some circumstances, such as not referring to the women's weight, as colluding with women in denial about their weight and its implications. The midwives are also placed in the unenviable position of having to apologise on behalf of colleagues who have not been so sensitive in their communication.

> Fleur We did have one lady who was quite offended that we were even asking her to have a GTT because you know, of her raised BMI.
>
> Ava I said to her oh have you had your diabetic test and she looked at me and said, 'No, why?' and so I explained that, you know, if any of our ladies are over a BMI of thirty they should have a glucose tolerance test. She was so cross, so cross! So I sort of carried on, went ahead and you know, booked her and all the rest of it, explained why and everything else and she made a complaint into the Community office the next day that I had made this appointment that she might have diabetes.
>
> Lily Now it's a BMI of 30 and above women have to come and see a consultant, have to be shared care. And I've found with booking women as well, they do get quite insulted by this, even if their BMI's just 30 and you know, having to explain to them, giving them information about a raised BMI, you know?
>
> Julie She was very obese. She came into hospital. I was her community midwife and I'd seen her all the way through. We came to know each other very well. She always said to me she was very grateful that I didn't weigh her within minutes of being seen and she always said to me that she was grateful that I explained actually I don't care particularly what you weigh, I just care about gathering this BMI because it was gonna give me a statistical representation of her risk and she could appreciate that. She came in to hospital, needless to say, she ended up with a caesarean section. From the caesarean section she ended up with a wound infection so we start along at just a path and then she had to come back for lots of postnatal appointments to look at the wound healing. For the registrar to actually say to her it's because you're overweight and she was absolutely heart-broken as you can imagine at this late stage. She'd been through her whole pregnancy. She knew she was overweight. She knew that wound healing was going to be an issue and she didn't need anybody to say to her at that point, actually this is your fault. It wasn't her fault, it was just a consequence of her weight. So that came in as a complaint at the time.

5.5.6 Catch 22: Discussion

Catch 22 demonstrates the significance that midwives assign to their communication interactions with this client group. Communication is wrought with difficulties and the phrase uttered in the Schmied *et al*. (2011, p.426) study – 'a no win situation' does support the metaphor of Catch 22 realised within this study as it accurately portrays

the position that the midwives can find themselves during communication encounters.

Richens and others (Richens, 2008; Johnson, 2009; West, 2010) believe that women know they are obese, midwives should openly discuss their weight with them, and communication should be honest and sensitive. However midwives in the Australian survey by Biro *et al*. (2013), conducted to effectively determine how midwives manage the care of obese pregnant women, discovered that 46.7% of the 333 respondents were reluctant to inform women that they were overweight or obese. As the midwives in the current study have experienced women's unpredictable reactions to being informed of their BMI measurement, it is not a surprise that the term obesity is avoided at all costs by the midwives and that the BMI measurement ≥30kg/m^2 is utilised as the reference point for communication exchanges. This avoidance of the term obese was also found by Foster and Hirst (2014), where one midwife in their study felt it was insulting to use the term. A cause for concern in focusing communication on BMI measurements is that previous studies have found that pregnant obese women have failed to fully understand them (Keely *et al*., 2011; Khazaezedeh *et al*., 2011).

It is very apparent from the transcripts, however, that midwives would like to be able to communicate more effectively with this group of women as communication currently can be protracted with the subject of obesity avoided or skirted around, particularly during antenatal appointments. These findings are supported by other studies (Schmied *et al*., 2011; Furness *et al*., 2011; Foster & Hirst, 2014). Reasons for this include midwives being embarrassed and finding it difficult to approach the issues with women, because they are concerned about making this client group feel uncomfortable (Heslehurst *et al*., 2007b; Knight-Agarwal *et al*., 2014) due to the stigmatisation of obesity in society. This is further supported by a second study by Heslehurst *et al*. (2011b) that revealed that healthcare practitioners still find it difficult to communicate with this client group as they fear that if their communication is not sensitive enough pregnant women will disengage with the maternity services. The respondents felt it was difficult to reach a balance and not to stigmatise obese pregnant women, but they realise that the risks do need to be communicated to them. However, as supported by the Furness *et al*. (2011) study, which investigated maternal obesity support services, there is no denying that the midwives in the current study feel that obesity stigma does create problems in communication encounters between them and their obese clients. Though it is interesting to note that the eight participants in a Scottish study (Keely *et al*., 2011, p.367) to determine obesity (categorised as having a BMI >40kg/m^2) as a risk factor in pregnancy felt

'weirdly' that the issue of their obesity was not really addressed by health professionals, and more positively that they had not been offended by any comments made to them during their experience of maternity care. This confirms the current study's findings that there is a marked reluctance to raise the subject of obesity. This can be viewed in simplistic terms: if health professionals do not raise the topic, they cannot therefore cause offence. This appears to be the status quo and explains the marked reluctance of the midwives to engage in this type of dialogue with this client group. This current study found that communication difficulties commenced as early as the booking appointment. Part of the booking appointment is to measure the women's BMI, and when a BMI≥30kg/m^2 is confirmed to alert them to their risk factors, and to make referrals for glucose tolerance tests and to see an obstetrician for shared care (NICE, 2010). A BMI≥40kg/m^2 will also involve an anaesthetic review with an anaesthetist and a referral to a dietitian (CMACE/RCOG, 2010). The midwives felt that women who book their pregnancies with them with a BMI ≥30kg/m^2 and particularly those with BMIs in the low 30s kg/m^2 are unprepared to be identified as being in a risk category because of their size. Healthcare professionals who were respondents in a 2007 study to assess the impact on maternity services of caring for obese pregnant women reported that women did not realise the risks to themselves and their baby if they are obese and become pregnant (Heslehurst *et al*., 2007b). Though this confirms this study's finding, it is a concern that this was first brought to healthcare professionals' attention in 2007; a further study confirmed these same findings in 2011 (Keely *et al*., 2011) and yet no public awareness continues to this day.

Midwives are therefore in a Catch 22 position because they have to communicate the risk factors and the extra care required, to women who may not consider themselves to be obese or at risk and whose responses can be unpredictable. Some women have been angry and offended by the midwives for suggesting e.g. glucose tolerance testing. Other women have been perceived by the midwives to behave as if this is not affecting them because they are no different to anyone else, presumably because their size is normalised in society and they therefore do not recognise their weight as an issue, a finding endorsed by Heslehurst *et al*. (2007b) and confirmed by other studies (Macleod *et al*., 2012; Knight-Agarwal *et al*., 2014). Conversely, some women have been desperate to know how to reduce their risk factors. 'You are damned if you do and damned if you don't' is another phrase echoed from the Schmied *et al*. study (2011, p.427) which further supports the participants' experiences of communication interactions with this client group. Similarities can be drawn with the experiences of primary care

providers (GPs and district nurses), whose patients also did not recognise their obesity status and the relative associated health concerns (Hansson *et al*., 2011).

Lee (2014) contends that women in maternity care who are deemed as high risk may not perceive risks in the same way as midwives and therefore healthcare professionals should provide information on risk factors which is individualised and sensitive. The midwives in this current study have been on the receiving end of differing reactions whilst endeavouring to provide sensitive and individualised information on risk factors to women, thus confirming that the women's perception of risk to themselves can be different depending upon what is important to them in their defined high-risk pregnancy (Lee, Ayres, & Holden, 2013). Further to this, women who were perceived to be more informed about the risks of being obese and pregnant were not found to be more susceptible to lifestyle interventions than those who were not so astute (Kominiarek, Vonderheid, & Endres, 2010).

Assessing and managing risk is fundamental to midwifery practice (Berg & Dahlberg, 2001); communicating the risks, however, to a woman who is already pregnant and whose BMI is ≥30kg/m^2 is very difficult for midwives in the study as risk identification does not provide a solution (Irwin, 2010). The midwives are often placed in a Catch 22 position of saying to women there is nothing they can do to reduce these risk factors, because they are determined by their BMI status and dieting is not advocated in pregnancy (NICE, 2010) to help to reduce their BMI measurement. Any discussion regarding weight management with the women can leave the midwives feeling powerless as there is no guidance as to how much weight women should put on in pregnancy (NICE, 2010). This finding is echoed in the Knight-Agarwal *et al*. (2014) study, which investigated health professionals' views on providing antenatal care for women with high BMIs. Whereas midwives in Foster and Hirst's (2014) study, which investigated their attitudes on giving obese pregnant women weight related advice, felt that the nature of their relationship with the women provided the crux in determining their motivation for giving this group of women this type of advice, though there was no elaboration on the nature of the relationship in the study. Conversely, obese pregnant women in a Swedish study did not want their weight to be the focus of their encounters with health professionals (Nyman *et al*., 2010), although it is apparent that the midwives in the current study feel that the women's weight raises a barrier to effective communication with this client group.

As they are not able to advise this group of women on weight gain in pregnancy (NICE, 2010), the midwives can only provide them with the same advice on dietary intake as for pregnant women with normal range BMIs: 2 000 calories per day for

the first six months of pregnancy and an extra 200 calories per day in the last three months (Mills, 2009). The midwives' advice is therefore very much generalised in this area, though Venter (2010), a dietitian, argues that this is not sufficient to prevent obese women from unnecessary weight gain in pregnancy, and that midwives and dietitians need to provide additional information on portion control and exercise for this client group.

Some midwives in the study suggest using Slimming World to help the women to manage their weight in pregnancy. Since this study commenced this has been endorsed by the Royal College of Midwives [RCM] (Grant, 2012) as an organisation outside the NHS that women can access to help ensure they do not put excessive weight on in their pregnancy. Other midwives in the study have offered women referrals to dietitians; however, this has been an 'opt in' service and there is a feeling that this would have proved more effective if it was an 'opt out' choice. Conversely, some midwives have felt reluctant to make referrals to an already overstretched service (Venter, 2009) and attempted to advise the women themselves. These findings are supported by the Macleod *et al*. (2012) study which conducted a survey to determine the weight management advice that midwives give to obese pregnant women, finding that only 15% of the respondents offered personalised advice on diet and physical activity to the women; and that their preference would be to refer obese women to specialised services such as a dietitian to advise this client group.

Midwives in the current study (as stated previously under Negative Impact) are time pressured in their delivery of care, and do not feel sufficiently educated or have the necessary extra time allocated to discuss dietary factors and weight management strategies with this client group. A similar finding was discovered in a study of primary healthcare providers and their interactions with obese patients, in that they felt they had insufficient time and education to discuss weight management (Hansson *et al*., 2011). As this was also reported by Macleod *et al*. (2012), it is not surprising that a commercial company, Slimming World, has observed a gap in the market in which to offer women support with their weight management in pregnancy, even producing a leaflet entitled *Discussing weight during pregnancy: A guide for midwives* in collaboration with the Royal College of Midwives (Grant, 2012). As yet it is questionable as to how successful this collaboration will be, as a maternity project to promote healthy eating, funded by the strategic health authority in Chesterfield and which offered free attendance for women with BMIs ≥35kg/m^2, discovered that only 18% of 341 women provided with free attendance vouchers attended all 24 sessions (Bramwell, 2012). However, a study of GPs and district nurses' views of

their interactions with obese patients suggested that commercial weight loss organisations are more effective than services which they could offer in primary healthcare (Hansson *et al*., 2011).

Yet midwives are advising women to seek weight management help by attending Slimming World or Weight Watchers, and interestingly it could be considered that the midwives are not identifying this as part of their role. This is supported by Heslehurst *et al*. (2011b, p.172), who suggest that antenatally midwives are 'overloaded with information to give to women' and that it would be more appropriate for them to signpost women to experts in the management of obesity. The researcher imagines that NHS dietetic management services are what Heslehurst *et al.* (2011b) were indicating and not commercial slimming companies. Further supporting the findings from the current study, a web-based survey of midwives by Macleod *et al*. (2012), working under the auspices of NHS Tayside, UK, discovered that only 15% of their respondents offered personalised advice on women's weight management. It is therefore not surprising that women's experiences of the maternity services are that they have received confusing and conflicting advice regarding gestational weight gain and weight management (Khazaezedeh *et al*., 2011; Lindhart *et al*., 2013; Knight-Agarwal *et al*., 2016).

It is noteworthy that presently there is no evidence to suggest who is best placed to offer specialist weight management advice to this client group (Williams, 2012). Within community practice, however, GPs feel that weight management should be the responsibility of the patient (Epstein & Ogden, 2005). This is also supported by the views of GPs and district nurses working in primary healthcare (Hansson *et al*., 2011). However, GPs and nurses were reported as wanting to be more effective in offering weight management advice in a study by Blackburn, Stathi, Keogh, & Eccleston (2015), but were reluctant to engage with patients because of their lack of knowledge and training. Yet, a study widely reported in the press (Boseley, 2016) regarding GPs being able to discuss weight management and not offend obese patients was not the actual reality of the study. The study conducted by Aveyard *et al.* (2016, p.2494) involved GPs spending thirty seconds referring their patients to commercial slimming organisations for twelve free sessions on the NHS ('Physician*: "While you're here, I just wanted to talk about your weight. You know the best way to lose weight is to go to [Slimming World or Rosemary Conley] and that's available free on the NHS?"*'). 40% of the patients engaged with this referral. This therefore suggests that midwives referring women to commercial slimming organisations could be viewed as acceptable practice.

Midwives, however, in a study focused on their attitudes towards giving weight-related advice to pregnant women felt that even if they were given extra time to discuss weight management, they would not necessarily do so (Foster & Hirst, 2014). There were significant recommendations from an online survey (Russell, Fyle, Da Costa-Fernandes, & Stockdale, 2010), which asked 6, 252 women (who participated on the internet site 'Netmums' in collaboration with the RCM) their views about their weight while pregnant and after the birth of their baby. A number advocated that more time was needed during the antenatal period for midwives to engage in individualised and meaningful conversations with women to help them to address their weight gain during and after pregnancy.

Yet a study conducted in Sweden (Wennberg, Lundqvist, Hogbert, Sandstrom, & Hamberg, 2013) suggests that if midwives are provided with dietary knowledge and counselling skills they can be vital in providing motivation for women to adopt a healthy lifestyle in early pregnancy. Unambiguous, informed and consistent information was what women stressed that they wanted from midwives in relation to their weight management in pregnancy (Furness *et al*., 2011). However, the midwives in the current study do not feel confident or competent enough to offer weight management advice to this group of women, particularly as there is no evidence base to support this (NICE, 2010). Yet, in a systematic review and meta-analysis conducted by Oteng-Ntim, Varma, Croker, Poston, and Doyle (2012), it was found that lifestyle interventions for obese pregnant women have consistently produced positive results. Caution must be applied in assuming that this could be utilised and applied by all midwives, as some interventions are highly intensive and require women to meet with specialist midwives weekly for a motivational talk and aquanatal classes (Claesson, Sydsjo, & Brynhildsen, 2008).

In another Swedish study (Claesson, Klein, Sydsjo, & Josefsson, 2014), it was also recommended that midwives should advise obese pregnant women to be physically active in pregnancy to help improve their quality of life and psychological well-being. However, this intervention study did not demonstrate any impact on weight loss/gain in pregnancy. Alternatively, Furber and McGowan's (2011, p.441) study on the experiences of obese pregnant women in the UK discovered that advising this group of women to attend aquanatal exercise classes alongside women of normal weight would just provide another opportunity for embarrassment for the women when exposing their bodies. They also found that women felt that their feelings were neglected as expectant mothers, and that the focus was on fetal wellbeing and screening, rather than on 'the mother and infant as a whole'. This

further illustrates the difficulties that the midwives in the current study are facing in trying to communicate with this client group.

An original finding within this study relates to homebirth, particularly given that none of the previous studies discussed (Furness *et al*., 2011; Schmied *et al*., 2011; Biro *et al*., 2013; Knight-Agarwal *et al*., 2014; Singleton & Furber, 2014), have mentioned it at all. Within this theme of Catch 22 it encapsulates the dichotomy that midwives can feel about women choosing to go against medical advice in opting for their own home as the place of birth and the fact that they have no choice but to provide care. They strongly feel that high risk women with BMIs in the 40s (kg/m^2) are putting both themselves and their babies at risk of poor outcomes. They feel conflicted in their professional role as they have to provide care that they do not agree with, but have to respectfully adhere to the women's wishes of favouring their own home in which to labour and birth their babies. The midwives have found that when women ask if homebirth is an option for them, they tend to refer them to an obstetric colleague to inform them that they do not believe it to be a safe option, rather than risk fracturing a developing or existing relationship with the women.

Another perspective on this dilemma is that obese pregnant women in Furber and McGowan's (2011) study felt that being informed that their size was a contributory factor to the midwives' inability to assess the progress of labour or listen to the FHR engendered feelings of devastation, self-loathing, self-blame and guilt that they should have lost weight before they became pregnant. Further to this, the women in the Nyman *et al*. (2010) study felt sad and humiliated when difficulties in care occurred, e.g. they were difficult to examine. Yet, what also needs to be considered by the midwives is that a study found that one in three women experience high levels of anxiety about whether their baby is alright and worry about aspects of their labour and birth (Singh & Newburn, 2000). This indicates that the midwives in the study are facing complex communication issues in practice when caring for this client group.

Participants in the study by Macleod *et al*. (2012) felt that, without adequate training on how to communicate with this client group, midwives' insensitive or inappropriate communication could have a detrimental effect on their relationship with the women. The midwives in this current study tend to support this and have expressed their own need to improve their communication skills, being only too aware of complaints made about obstetric colleagues' communication and accepting that this is a complex communication area in midwifery practice.

In summary, some of the findings discussed are supported by other studies. However, the bewilderment and upset sometimes caused by the women's reactions

during communication encounters when the midwives feel they have been trying their best to deliver evidence-based care and homebirth requests, and the veracity of communication encounters between the midwives and the women relating to difficulties in care delivery, are findings unique to this study. Being a good communicator is considered integral to the midwives' role; however, the extent to which the midwives' distinct communication difficulties can sometimes develop, ensure that they often find themselves in a Catch 22 situation.

5.6 Super-Ordinate Theme: Caring Against All Odds

This super-ordinate theme of 'Caring Against All Odds' amalgamates the emergent themes found in table 5.6. Previously this study has detailed a lot of negatives regarding what it means to midwives to care for this client group, but there are also positive findings which have been encapsulated under this super-ordinate theme. Metaphorically, the midwives are effectively 'caring against all odds', in that despite the risk factors and visibly obese women, midwives see beyond their obesity, focus on the individual and not their BMI measurement, and strive to promote normality and make suggestions for improving the service for this client group.

Table 5.6: Super-ordinate theme: Caring against all odds

Emergent themes making up super-ordinate theme	How many participants mentioned theme	How many times theme was referred to by participants
Strategies for communication	8	15
Health promotion	8	20
Seeing beyond obesity	7	10
Midwives' concern and care for the women	6	12
Ideas for improving the service	5	9
Promoting normality against the odds	5	6

5.6.1 Strategies for communication

Some of the midwives have developed strategies for communicating with this client group and have focused the discussion around the women's BMI measurement and not on their actual weight. Even though they have a finite time for an antenatal appointment, the midwives endeavoured to build a rapport before discussing the women's BMI. There is indeed a sense that the midwives do want to sensitively communicate with each woman on an individual basis and not just to meet a 'tick

box' requirement. Referring to their individual Trust's policy on managing patients with raised BMIs can assist midwives with communicating with this client group, as it places the responsibility a discreet distance from the midwife and towards nebulous organisational policy necessities. This created distance from the midwives could also be considered a protective mechanism as they are only too aware that the topic of obesity can be considered a stigmatising issue by the women, therefore the women's weight and the term 'obesity' are avoided.

Midwives who themselves have BMIs ≥30kg/m^2 have used humour, empathy and their own weight issues to help them to communicate, whereas other midwives have attempted to use positive imagery of it being a normal birth process and that their BMI is just an aspect for the women to consider (and that it is the Trust's policy). Reducing the women's risks in pregnancy is also used as a focus for communication and related to their individual BMIs. There is a real sense that though communication is being individualised, the midwives are striving very hard not to apportion blame to individuals for their raised BMI and its potential risks. This is a very difficult area of communication for the midwives because they are aware that it is the individual's raised BMI that is responsible for these increased risks in pregnancy. They are fearful of an honest dialogue about this situation because of not wanting to cause offense or upset to the women, whilst also being aware of the unpredictable reactions of some women on being informed they have a raised BMI and what its implications are.

It does help with communication, however, if the women have heard of the BMI measurement before booking their pregnancy and are aware that they are overweight. The midwives have strived to develop communication strategies with this client group because of the perceived difficulties of communicating with them, not just during the antenatal period but during labour and the postnatal stages, and have attempted to adapt these strategies in an approach which is individualised and realistic for each situation; this is appreciated by some of the women. The majority of the focus, however, for this emergent theme 'Strategies for communication' has centred on antenatal communication episodes. This is because this area has caused the most concerns for the midwives and is where they have done their utmost to make adaptations to their communication with this client group:

> Ava You didn't mention the word weight actually, you just said well, have you heard about a BMI and they would actually… quite a lot of them all said, yeah I'm overweight, you know and it's an easier way to approach it with people and they're a bit more accepting of that.

> Fleur But we just sort of explain look it's just one of those, you know, it's just policy. So it's a certain criteria, you know, it's not that you're being

pinpointed. It's just one in the list, you know? And tried to sort of reassure her it was nothing personal that you know, that it was just kind of, you know, she wasn't being targeted, you know [to have GTT]. Solely that we do have a list of criteria and it's just within the risk that she might be slightly raised. You know, chance of having diabetic and it was important to find out.

Zoe Your body regardless of your BMI is carrying a pregnancy and so you know, accept that that is the normal and if yes we're there to make sure that your health isn't put at risk by doing these other tests but just think to yourself all along, no matter what shape or size anybody is that the miracle's taking place regardless and so I'm just kind of behind the woman to say don't let it worry you. Don't let it bother you.

Kerry By trying to wait for an appropriate point in the conversation where I've already built up a rapport with the woman. You just say well you know, often when you're pregnant you've got more body fat anyway and for bigger girls you know, like me, I was exactly the same and often if I put myself and empathise and say look I'm no Twiggy myself and often that'll help to make them laugh, put them at their ease, build a bit of rapport that I'm empathising with them saying I know how you feel and it just helps to build that midwife/client rapport that you're looking for, especially on labour ward and in the assessment area particularly where you've got quite a fast turnover of women because it's a triage area.

5.6.2 Health promotion

Midwives consider health promotion to be an essential part of their role and they take any opportunity to promote health without causing offence. Health promotion opportunities are very much seized upon by the midwives, particularly when women express that they want to manage their weight and appear to be receptive to advice on lifestyle changes.

Health promotion advice is shaped around and linked to the health of their future child during the antenatal period, and postnatally on advocating breastfeeding as being the best possible start for their child's health. Providing them with simple advice on small changes in diet, and encouraging aquanatal exercise antenatally and small walks postnatally, do engender a rapport with the midwives, suggesting that their encouragement and promotion of small lifestyle changes are being welcomed by the women. Equally, it can make the midwives feel less powerless in their interactions with this client group, in that they are offering advice and it is being acted upon.

During the antenatal period general advice is given to all women on what is considered to be a healthy diet. There is however a difference with this client group in that some midwives are advising women with raised BMIs to attend commercial slimming clubs (e.g. Slimming World) to assist them with provision of a healthy diet and to help manage their weight.

Ideally, the midwives see community midwives in the postnatal period as being best placed to offer health promotion advice that could positively affect future pregnancies, i.e. to achieve a lower BMI before embarking on a subsequent pregnancy; by contrast, in the antenatal period the women are already presenting with raised BMIs and cannot be advised to diet in pregnancy. There is therefore recognition amongst the midwives that, though desirable antenatally, promoting health in terms of diet and exercise and addressing the women's weight at that time is not always optimal:

> Beth I think postnatally we can do a lot for women because sometimes, like I say, we catch them at the wrong point being midwives unless you're perhaps a community midwife that knows a family from a previous pregnancy. They're gearing up for a pregnancy again that you find out about and you can chat with them so it's a lot of the time it's if women want to get the help and are willing to go to a GP [General Practitioner] or if they have a professional that can help try and you know so promote a healthy lifestyle before they get pregnant. So I think postnatally we have a lot that we can help with because I always talk to ladies about when I'm on a ward, with them before they're going home about sort of really promoting a healthier lifestyle because obviously this pregnancy has been and gone but for the next one… but it's trying to point out that you're just trying to help as much as you can to promote health 'cause that's part of your role.

> Ava What I tend to do is, with women is, if I think they're sort of receptive, is I talk to them about Slimming World because they will take pregnant women on because pregnant women have brought me the form to sign and that's fine and I've had someone who've had brilliant results with that and you're reiterating, you know, what we've been saying for years is you don't actually need to eat for two, you know, and you should be exercising and you should be doing this and I chase them to aquanatal and get that head down, get into aquanatal, you know.

> Zoe If a lady presents who's got a large BMI and you know, I'd be saying to them, you know, make sure you're trying to eat as best as possible and sometimes people will sort of say well, it's not so possible and then I'd usually sort of bung in a few ideas if I can do, you know, just sort of saying, well you know, get… rather than eating a chocolate bar just have a banana or something like that… so obviously things like that just to sort of try and jog people to think oh well maybe the midwife said, what she said made a bit of sense.

> Grace If we can get women breastfeeding we start them off on the perfect start and if you want to help women to improve their lifestyles, the perfect time to do it is during pregnancy because then they're focused on the future, a new baby, all the maternal instincts come to the fore.

5.6.3 Seeing beyond obesity

Midwives advocate and practise holistic, individualised care which is underpinned by kindness and compassion. The midwives do not want the women to feel different or blamed for the implications of their size. Essentially they do not wish to marginalise

or stigmatise them. Some of the midwives with raised BMIs themselves are particularly sensitive about the stigmatising effects being obese can have, and of the judgements of others on their size, so they do not want the women in their care to have the same experiences as themselves:

> Beth I'm very much a person that wants to treat everybody the same regardless. So the fact that somebody has got a raised BMI doesn't make a difference to how I treat them or what I may do…. You just have to treat them as they are, same as any other woman going through a natural process but obviously try and promote her health as much as you can along the way.

> Lily Everyone's an individual and you know, just because somebody's got a raised BMI and somebody hasn't, they're still the same person at the end of the day, you know, having a raised BMI myself, you know how some people can perceive you in different ways and make a judgement on you, you know, without thinking, you know, you should isolate that she is a woman in labour and not think 'raised BMI woman in labour'.

> Kyra I don't think you should judge people and I think in our job, I mean I've never judged anybody, you know, people are people. It doesn't really matter. They come in… people come in all shapes and sizes, pregnant or not and it's the person not the size and I know we put a lot of store by whether someone has a raised BMI or not but I don't think you should get hung up on that little bit. It's the whole person you that you should be looking after and that's just one aspect of their care.

The midwives strive to see beyond obesity in the women and provide individualised care within the remit of their risk policies. They are aware that this group of women is defined by their weight in correlation to their BMI measurement and by their physical appearance, but endeavour to see the woman and not her BMI number. They endeavour to treat everyone the same, and having a raised BMI is considered to be only one aspect of the woman's care; it is not the BMI first and woman second. They therefore do their utmost to see beyond the woman's obesity to the needs and requirements of the individual. This is an admirable quality in the majority of participants in the study (though one participant struggled to see beyond obesity), particularly given that Lewis *et al*. (2011) argue that it does not matter how well a person presents themselves: rather than seeing the person themselves, other people will only see their stigmatising characteristic (obesity).

5.6.4 Midwives' concern and care for women

It is evident that midwives display care and compassion to this client group and consider the particular issues that individual women may have, specifically being body conscious, and they do the best that they possibly can for them. For most of the midwives there is an awareness that being obese is a complex issue for the women and not just determined by their ingestion of extra calories. It is important to

the midwives to display a positive attitude to caring for this group of women because some of the midwives do feel very sorry for them. This can commence at the booking appointment, when women have not realised they are obese or have not been aware before they became pregnant of the risks associated with this. The women's experience can range from healthcare staff being unable to perform routine procedures on them (abdominal palpations, fetal monitoring, ultrasound scans), to having to reveal their bodies for these routine procedures, to birthing their babies, to having assistance with breastfeeding and having their caesarean section wounds observed. For the midwives there are therefore many interactions which can cause heart-rending feelings towards these women. There is an acknowledgement from the midwives that it can be hard work physically to care for this group of women during labour, but their intention is to put that aside, particularly when they have engendered a good rapport with the women.

> Kerry Overall I try and give the same level of care to everyone 'cause when you're in that situation, when you're having a baby it's the same for every over-excited mum. You're just so happy. You try and give the same level of kindness, consideration and care that you would to anybody but some women just have different issues. Whether it's raised BMI or whatever minor complication there is.

> Laura That was quite a hard day to be honest and I was tired afterwards but it does help when they're so lovely. You feel like you want to, you know, stretch yourself really.

> Zoe The poor woman is in that position whether she likes it or not and my heart goes out to somebody who maybe is not aware that they've got a risk factor from this but I do think the troubling thing that I have is a woman's self-confidence can be really knocked by being of a slightly higher BMI, you know, somebody who's a BMI of 30, 31, 32 could look, well you know, fairly normal but they are automatically put into a risk factor group now when they never used to be. There's a lot of people out there who are heavier than they want to be and I don't necessarily think it's just because people are sitting gorging all day. I think life's hard, life's complex and for some people it's one of those things that life's not so great and that's how it is for them and so when they present for maternity care sometimes that's the only time they've ever, ever had their body in the spotlight and they've then got to hand their body over for strangers to touch it and some people are so body conscious they never, they'd always be in sloppy clothes, they'd always be covered up and then for the first time maybe in their lives they've got somebody totally different saying, 'Right, let's have a feel of your tummy,' and I think it's so important that midwives have a positive, positive attitude towards the amazing thing you know, that the lady is pregnant.

5.6.5 Ideas for improving the service

Midwives want to improve the care that this group of women receive by providing better plans of care, more cohesive working within the multidisciplinary team, the provision of specialist services such as specialist midwives, and having a dedicated

clinic for women with BMIs >35kg/m^2. It was felt that offering all women classes on positive lifestyles and healthy eating would be better than specifically focusing on classes for obese women and targeting them. It was also felt by some of the midwives in the study that as the numbers of obese women presenting at booking are significantly increasing, specifically targeting those with very high BMIs to attend a specialist clinic with a specialist midwife will be an essential requirement in meeting the Clinical Negligence Scheme for Trusts' (CNST) requirements in the future. The midwives were aware that other Trusts outside the region have started to deploy specialist clinics and employ specialist midwives to deal with the issue of obesity in maternity care:

> Grace As a midwife we sometimes find that you want to do more but you feel as if you've obviously time constraints, resources, funding isn't always available. I personally would like to have an obesity clinic and I know there's two ways of thinking. Some people think it's singling women out…. My thoughts are that women would know that there was something there for them. I think we should have an obesity midwife, a midwife who deals strictly with the obese, I think if you've got someone that focuses on that particular aspect of it, we can build services around it.

> Ivy We are thinking now when we're looking again with our CNST stuff how many ladies we are getting with BMIs over 40 and now we're starting to think do we need to start running a clinic specifically for large BMIs because certainly in lots of the other teaching hospitals, they're already doing it because the numbers, it's out there.

5.6.6 Promoting normality against the odds

It appears that midwives do all that they can to not only promote but enable normality with this group of women. Encouraging mobilisation appears to be key to aiding women to achieve a normal birth, however it is very difficult for the midwives to do in these circumstances, especially when this client group require continuous monitoring (EFM) of the fetal heart rate and in some circumstances fetal scalp electrode attachment; the midwives, though, do strive to work around this situation.

What motivates midwives to promote normality with this client group is open to discussion as their motives appear to be divided. On the one hand they have expressed that they do not want the women to follow an abnormal birth process because of all the attendant problems involved; and on the other they just want them to have as much of a normal birth process as possible, as is achievable for women with normal range BMIs. The quote from Cerys about how she felt when the woman in her care achieved a normal birth is particularly heart-warming:

> Cerys If you've got a lady with a really big BMI, when you get a normal delivery you do feel… it's joyous any day… you do, you're thinking ooh.

Beth You want to, as a midwife, you want to promote normality as much as you can for everyone.

Laura I still encouraged her to mobilise, she still wanted to get up and you know what, I still got on my knees and keep that monitor on so that I can pick up her fetal heart so that they can stand up because it's all about normality isn't it and you have to try and get everyone to think that this is a normal process.

Julie My personal experiences are dreading them to be abnormal because you know that the surroundings don't support it so you want them to be as low risk as they can. So you don't want them to end up in theatre and you're reasoning for that… you don't want any woman to end up in theatre but you know that this is just going to be so much harder on so many levels so you've got that willing to keep them normal.

5.6.7 Caring Against All Odds: Discussion

'Caring Against All Odds' displays how the midwives want to improve the care that this group of women receive and the compassion and care which is inherent in their practice. It is an inspiring and uplifting super-ordinate theme in comparison with some of the other findings apparent within the study. It provides encouragement and promise that despite the difficulties that the midwives experience in caring for this group of women, they are also able to demonstrate distinct positives in their engagement with them.

In communicating with this client group the midwives have developed their own communication approaches because they have become aware that there is real potential for communication difficulties and as such they strive not to cause offence to the women. There is a real sense that the midwives do not want to be perceived as apportioning or communicating blame and stigmatising the women (Macleod *et al*., 2012). These communication strategies, particularly focusing on the BMI and Trust policies, could be considered protective mechanisms for the midwives, so that they do not have to talk openly about the issue of obesity. Utilising the BMI measurement for such a protective purpose was found in Furness *et al*. (2011) study, which investigated both women's and midwives' perspectives on maternal obesity support services.

Other topics utilised by the midwives on which to focus their communication and thus avoid discussing obesity are reducing the women's risks in pregnancy and using positive imagery of it being a normal birth process to the women during labour (an original finding in this study). Utilising empathy and referring to their own size was supported by Schmied *et al*. (2011) to help to promote communication engagement between the midwives and the women, but invoking humour seems to be present in this current study only.

Building a rapport with the women was seen as being very important by the midwives, particularly before introducing the subject of their raised BMI. This finding was also echoed by other studies (Schmied *et al*., 2011; Singleton & Furber, 2014).

Providing and communicating individualised information to the women was also supported by Schmied *et al*. (2011) and Singleton and Furber (2014). However, stock phrases are also utilised by the midwives to assist them with communicating with this client group. Midwives used particular phrases to explain why there were difficulties in conducting abdominal palpation and fetal monitoring, such as, Cerys *'I just say there's a bit more of you.'* Similar phraseology was used by midwives in Singleton and Furber's (2014) study. This confirms that midwives are aiming to give some sort of credible explanation on a superficial level, but because they are uncomfortable with discussing obesity issues communication remains at this level. Notably, all the midwives in the study strive to provide sensitive communication with the women, a finding which is supported by other studies (Schmied *et al*., 2011; Singleton & Furber, 2014), and consider communication to be much easier when the women refer to their size themselves.

There is an acknowledgement amongst the midwives that antenatally promoting health – in terms of diet and exercise and addressing the women's weight (NICE, 2010) – is not the best possible time for the women: 'we catch them at the wrong point being midwives' (Beth, reference 1). This feeling that it is the wrong time and too late when the women meet the midwives in their pregnancy is supported by Knight-Agarwal *et al*. (2014). However, whilst this may be how the midwives are feeling they do attempt and are always on the alert for health promotion opportunities, particularly antenatally, which is considered in other studies to be the best time for women to be motivated towards maintaining and improving their health (Stotland *et al*., 2010; Knight-Agarwal *et al.,* 2014). The midwives also seize the opportunity to promote health with this client group if they display any interest in wanting to improve their health, though they are vigilant towards the negative aspects of promoting health to women who are in denial about the health risks of a raised BMI, and are cautious about this aspect of communication causing a detrimental effect on the relationship they are endeavouring to build with the women (Macleod *et al*., 2012). Positive feelings towards this client group are produced within the midwives when their encouragement and promotion of small lifestyle changes are welcomed by the women.

Health promotion advice in the antenatal period is shaped around and linked to the health of the future child as this has always been viewed as a positive time for women to engage with health promotion messages (Catalano & Ehrenberg, 2006).

The midwives advise on simple small changes in diet and encourage aquanatal exercise. Yet advising on exercise in pregnancy was found to be always advocated by only 61% of midwives in the Biro *et al*. (2013) Australian study, and no figures are available as to what is advised by midwives currently practising in England. Advocating simultaneous lifestyle changes to diet and exercise to obese pregnant women has implications of them disengaging with the maternity services (Williams, 2012). The most opportune time for this is therefore considered to be postnatal and pre-conception, as recommended by the midwives in the study and backed by NICE (2010).

The findings from the study state that postnatal health promotion advice is fashioned on promoting breastfeeding as the best possible start for the child's future health and on taking exercise, such as small walks, with the baby in the pram. The midwives feel that health promotion's biggest potential impact on this client group could come from community midwives who see women postnatally and prior to subsequent pregnancies. Pre-conception weight management advice was also advocated by midwives in Macleod *et al.* (2012), rather than during the antenatal period. Pre-conception weight management opportunities were found to be a very neglected area in a study by Heslehurst *et al*. (2007b) and, though suggested by the midwives in the current study, they are not actually being offered seven years later.

Essentially, the midwives see the postnatal period and community midwives as being best placed to offer health promotion advice that could positively affect future pregnancies, i.e. to achieve a lower BMI measurement before embarking on a subsequent pregnancy. This is preferable to the antenatal period, when the women are already presenting with raised BMIs and cannot be advised to diet in pregnancy (CMACE/RCOG, 2010; NICE, 2010), but will naturally gain weight as their pregnancy advances (Williams, 2012).

Antenatally, midwives utilise the BMI measurement to aid them in their communication with this client group, which is supported by Furness *et al*. (2011) where it is considered a positive use of the women's BMI measurement. A negative use, however, was found during intrapartum care delivery in that the midwives believed that the women are clearly defined by their colleagues by their BMI measurement and therefore their personal identify is secondary to their obesity, a finding supported by Singleton and Furber (2014).

Yet, it was found that the midwives caring for these women try very hard to provide individualised, women-centred care, despite the visual impact that the size of women with very high BMIs in the 50s (kg/m^2) can have on the midwives (Singleton & Furber, 2014). This advocacy and practice of holistic, individualised

care is underpinned by the midwives' kindness and compassion. Other studies have found opposing views, whereby midwives have felt intolerance and repulsion on providing care for this client group (Schmied *et al*., 2011).

The midwives in this study, patently, do not want the women to feel different, to be blamed for the implications of their size. Essentially, they do not wish to marginalise or stigmatise them. (Weight stigma has been previously discussed under Size Matters, section 5.3.6.) This is a positive aspect of their care delivery to this client group, particularly as Lewis *et al.* (2011) argue that obese individuals usually blame themselves for stigmatising experiences.

The findings under this emergent theme were very heart-warming for the researcher as they demonstrated midwives' deep care and compassion for this client group. For most of the midwives there is an awareness that being obese is a complex issue for the women and not just determined by their ingestion of extra calories (Schmied *et al*., 2011; Knight-Agarwal *et al*., 2014; Singleton & Furber, 2014).

The majority of the midwives feel very sorry for the women in that they have observed most of the women being embarrassed, very self-conscious and discomforted about revealing their bodies to them. This has occurred in their care encounters in the performance of procedures such as abdominal palpations, fetal monitoring, ultrasound scans, assisting the women to birth their babies, supporting them to breastfeed, and having to ask them to lift their abdomens to have their caesarean section wounds observed. This finding was confirmed from obese women's perspectives in the Nyman *et al*. (2010) study on their encounters with midwives and physicians. The researchers in that study recommend that midwives should be aware that obese childbearing women are very body conscious: midwives not just looking at their exposed bodies, but also touching them, can evoke feelings of discomfort, anguish and alienation.

The midwives palpably display care, empathy and compassion for this client group and also consider the particular issues that individual women may have, and they do the best that they possibly can for them. There are other interactions with this client group which can cause heart-rending feelings in the midwives towards them. This can commence at the booking appointment when women have not realised they are obese or have not been aware before they became pregnant of the risks associated with this, and then are on the receiving end of healthcare staff being unable to perform routine procedures on them during antenatal, intrapartum and postnatal care. These difficulties are another aspect of the women's maternity care experience that causes them to feel embarrassed and humiliated (Furber &

McGowan, 2011). Therefore, the midwives are very sensitive to the needs of this client group in that they are fearful of causing the women further embarrassment and hurting their feelings during their interactions with them. Singleton and Furber (2014) confirm this finding, but only in relation to intrapartum care.

There is also an acknowledgement from the midwives that though it can be hard work physically to care for this group of women during labour (Schmied *et al*., 2011), they aim to put that aside, particularly when they have built a good rapport with the women. A good rapport is felt to be essential to enable the midwives to build a trusting relationship with the women and thus enhance their communication encounters (Furness *et al*., 2011; Schmied *et al*., 2011).

As previously mentioned some of the midwives in the study wanted to improve the care that this group of women receive, and suggested ways of achieving this by providing better plans of care, more cohesive working within the multidisciplinary team, the provision of specialist services such as specialist midwives (Heslehurst *et al*., 2011) and having a dedicated clinic for women with BMIs >35kg/m^2.

The midwives were aware of other Trusts outside the region that have started to deploy specialist clinics and employ specialist midwives to deal with the issue of obesity in maternity care (Furness *et al*., 2011). That midwives feel that more specialised services are required to assist in the management of this client group is a theme reinforced in other studies (Heslehurst *et al*., 2013; Schmied *et al*., 2011; Macleod *et al*., 2012; Knight-Agarwal *et al*., 2014). However, CMACE/RCOG (2010) advise that due to the increasing numbers of this client population it is not going to be financially viable to set up specialist services, and that this group of women should be cared for with the rest of the maternity population, but with the use of specialist referrals as individually required. Yet it was also felt by some of the midwives in the study that as the numbers of obese women presenting at booking are significantly increasing, specifically targeting those with very high BMIs to attend a specialist clinic with a specialist midwife could become an essential requirement in meeting CNST (Clinical Negligence Scheme for Trusts) (Marshall *et al*., 2014) requirements for the future. However, during the conduction of the study CNST has been replaced by the Care Quality Commission (CQC, 2016) standards for safety and quality care delivery and Sign Up to Safety has been supported by the requirements of the Litigation Authority (NHS England, 2014).

Another suggestion made by the midwives for improving service provision was that offering classes on positive lifestyles and healthy eating to all women would be better than specifically focusing on classes for obese women. However, a study reporting the outcome of group weight management classes led by a midwife found

that it was an acceptable intervention for the pregnant women who took part (Jewell, Avery, Barber & Simpson, 2014).

The midwives therefore endeavour to promote and enable normality as much as is feasible in a defined high risk group. The study also identified the genuine pleasure of the midwives when the women achieve a normal birth. This desire to facilitate normality during intrapartum care was also echoed by the midwives in Singleton and Furber's study (2014), as was the concept that encouraging mobilisation is key to aiding obese women to achieve a normal birth. The midwives are realistic that due to this client group requiring continuous fetal monitoring, and in some circumstances fetal scalp electrode attachment, it can be very difficult for the midwives to encourage mobilisation (Singleton & Furber, 2014) and the midwives strive to work around this situation. Despite the congruence between the two different group of midwives in both studies, there was a differing viewpoint on mobilisation: the midwives in this current study felt that this group of women were reluctant to mobilise prior to the commencement of the continuous monitoring of the FHR, but agreed that continuous CTG monitoring reduced mobility and contributed to a decline in normality, and thus further medicalised this client group (Singleton & Furber, 2014).

Another finding under this emergent theme suggests that midwives may have two major reasons for promoting normality in this defined high risk group. On the one hand they want them to have as much of a normal physiological birth process as is achievable for women with high range BMIs, adhering to the principle that promoting normality is integral to the role of the midwife (Singleton & Furber, 2014). Alternatively, their motives may not be so altruistic and can be because they do not want the women to follow an abnormal birth process because of all the attendant problems involved, thus resulting in a heavier workload for the midwives.

In summary, this super-ordinate theme details the positive findings from the study. Potential strategies for communication are identified for improving interactions between the midwives and this client group. Health promotion opportunities and suggestions for improving the provision of care are also detailed. Midwives' care and compassion, and their endeavours not to stigmatise this group of women and to see beyond the individual woman's obesity, are clearly demonstrated. Ultimately, I contend that the most positive finding is the midwives' expression of genuine pleasure when women in this defined high risk group achieve a normal birth, enabled by the midwives' promotion of normality against the odds.

5.7 Conclusion

This conclusion sums up the unique findings of the study from the midwives' perspectives. These clearly indicate the difficulties that midwives can experience in caring for this client group during antenatal, intrapartum and postnatal care, though original findings under the theme of 'Negative Impact' are mostly focused on intrapartum care delivery and the following information highlights them. It has been clearly identified by the participants that when caring for women with BMIs ≥35kg/m^2 who have been diagnosed as being in established labour, continuous monitoring of the FHR is required according to their individual Trust's policies. This obligation is having a major impact on the midwives' ability to fulfil all the requirements of their role in caring for a woman in labour, and is consequently causing them to suffer increasing levels of stress. More than one individual is therefore required to assist in the intrapartum care for this client group because it can be physically demanding and indeed stressful for midwives working by themselves.

Yet there is also a dichotomy in the midwives' reasons for at times putting themselves at risk of personal injury by holding a CTG transducer in place for a long time. The midwives want to avoid the women experiencing a cascade of intervention which they believe can result in an emergency caesarean section if fetal wellbeing cannot be assured. They wish to avoid this because they want to promote normality as much is possible for a woman who is labelled as high risk, but also because they are aware that it can increase their workload and at times prove to be logistically difficult.

When the midwives experience difficulties in trying to continuously assess the FHR they welcome their obstetric colleagues' input, which has not been evidenced in other studies. This should not be a surprise when it is being expressed how anxious the midwives feel about trying to achieve continuous surveillance of the FHR.

The depiction of midwives' stress and anxiety is unlike other findings because of their Trusts' requirements for continuous electronic FHR monitoring in labour. The midwives worry about the risks that the women may face during childbirth, and stress and anxiety are alarming negative emotions that midwives experience when caring for this client group, especially during intrapartum care.

Resource implications have also been identified in other studies as previously discussed, but what is made apparent in this study are the extra personnel required to safely transfer a woman with a BMI ≥40kg/m^2 (morbidly obese) to theatres for an emergency caesarean section. A related issue is the increasing number of referrals

to the medical obstetric clinic, but with no extra staff provided to meet these requirements.

From the women's perspective repeated vaginal examinations to reattach FSEs are potentially causing them to feel embarrassed at having to expose their bodies so often, and also can put the fetus at risk of an ascending infection.

The midwives suggest that this client group are more prone to postnatal wound infections following a caesarean section, which was also a finding in Schmied *et al*. (2011). The midwives in this current study, however, disclosed that the women want an explanation of why their wounds have become infected and they find this a challenging aspect of communicating with this group of women.

In common with other studies, the midwives feel that caring for this client group has become the norm in practice. What is different is their perception that the group represent at least 50% of the women they care for. The clients are also perceived as becoming larger; this at times has been outside the midwives' experience and they have felt overwhelmed and shocked by the size of women with high BMIs, yet women with BMIs around the lower 30s kg/m^2 threshold look of normal size to the midwives. The midwives' overall perception of this client group is that they are emotionally vulnerable due to their size.

The size of the midwife appears to affect communication with the women. What is distinct in the study is that midwives with raised BMIs themselves do not have any qualms in their communication with the women and utilise their own size, usually with a humorous and empathetic intention. Their colleagues with normal BMIs are wary that the women may feel that they are reproving of them, yet these same midwives do not feel that their midwifery colleagues with raised BMIs could be considered good health promotion role models to the women.

Communication difficulties are endemic with this client group which is also evidenced in other studies. However, what is apparent in the study is how unsettled it makes the midwives feel when they do not respond truthfully to the women when asked directly if their size is implicated when care delivery is difficult. This makes the midwives feel uncomfortable and ill at ease, and exacerbates their stress levels in caring for this group of women.

As reported elsewhere in the literature, the midwives have developed strategies to assist them with communication and to inure them to unpredictable emotional outbursts from women when informed of the risks of being obese and pregnant. A finding in this study is that they have also striven to develop their communication with women who have complained about obstetric colleagues' communication so that they do not exacerbate the women's upset. Moreover, they have used positive

birth imagery to promote a sense of normality for the women who are clearly identified as high risk.

A distinctive difference in this study is the participants' inclination to see beyond the women's obesity to them as individuals. The midwives do not want the women to be defined by their BMI measurement and size, and clearly demonstrate holistic, individualised care underpinned by compassion. Further to this, the midwives try hard not to judge this group of women because they are aware that they will have experienced stigmatisation in other settings, and do not want them to experience any sense of marginalisation with them. This undoubtedly resonates with the midwives with raised BMIs themselves and they are particularly sensitive to how people can be judged by their size. The majority of midwives feel sorry for what the women may have to experience during maternity care which does identify them as experiencing difficulties with care delivery, requiring more personnel for manual handling procedures, being at risk and having to expose their bodies. Some of the midwives therefore choose to put themselves forward (self-select) to care for this group of women during labour, possibly because they do not want the women to be on the receiving end of judgemental attitudes/behaviour from their colleagues.

The midwives consider that health promotion is an important aspect of their role in caring for this client group. This study, however, indicates that they wait for cues from the women to suggest that they are interested in improving their health before they actively engage with them on this aspect of care. This recognition that some of the women requesting guidance and the advice that the midwives give to them, does engender positive feelings in the midwives, in that they are able to be proactive and help this client group. Ultimately, however the midwives feel that community midwives are best placed to offer the majority of health promotion information and support to enable women to reduce their BMI before they embark on a subsequent pregnancy. The midwives make another suggestion as to how this client group could be reached to improve their health, and that is not to target them as a defined group due to their raised BMIs, but to offer all women classes on healthy diet and positive lifestyle choices. However, because of the risks of having a raised BMI some of the midwives feel that it could be a risk management issue, and suggest providing a specialist clinic for the women to attend to meet a risk standard requirement. The midwives do not identify that weight management is within their remit and, as seen in other studies outside of maternity care delivery settings, believe that referring obese women to commercial slimming organisations is the way forward.

The midwives strive to promote normality within this defined high risk group, and their expression of genuine pleasure because the women have achieved a normal birth has not been articulated before.

This study has demonstrated similarities between the midwives' experiences of caring for women with raised BMIs and the findings of other published research, yet what also has been highlighted are the unique findings derived from what it means to the midwives to care for this client group during their journey through the childbirth continuum. It is a complex area of maternity care delivery, presenting many challenges to the midwives, which they embrace. They are aware, however, that due to the limitations of their knowledge and training on the subject of obesity, their communication encounters with this client group require improvement if they are to provide optimal care, particularly as obesity is viewed as a stigmatising issue. There are distinct differences in providing care to women with raised BMIs as opposed to those with normal range BMIs, and these mostly centre around the implications of providing routine care, which is considered exceptionally hard work, especially without the appropriate resources.

Chapter 6: Exploration and Contextualisation of Findings for Part 2

6.1 Introduction

Chapter 6 details the findings of part 2 of the study: what it means to student midwives to care for women with raised BMIs during the childbirth continuum. The findings will be displayed and discussed under five super-ordinate themes: Prepared to Care, Size Matters, Normalising the Risk, Communication Truths, and Mind the Gap. Table 6.1 provides a depiction of the emergent themes that form the super-ordinate themes. Participants' quotes are taken directly from the NVivo 10 coding (Bazeley & Jackson, 2013) to support the study's findings. This chapter also details and discusses the similarities and differences of the findings realised in parts 1 and 2 of the study. Parallels and variations of meaning will be drawn and explored. Findings from the student midwives' perspective will be original as there have been no studies conducted in this area.

Table 6.1: Part 2 Student midwives: Creation of super-ordinate themes

Super-ordinate themes	Emergent themes
Prepared to care	Caring
	Challenges of delivering care
	Educationally feels prepared to care for this client group
	Practice experience
	Students do not have 'sinking feeling'
Size matters	Judgements
	Raised BMIs are the norm
	Size of student midwife and midwife
	Size of woman
	Women's awareness and lack awareness of their size
Communication truths	Students' perception of midwives' communication issues with women
	Students' reluctance to express knowledge for fear of upsetting or showing-up mentors
	Sensitive communication
	Truthful communication
Normalising the risk	Medicalised and high risk
	Non-judgemental, aims not to discriminate, treats everyone the same
	Promotes normality
Mind the gap	Suggestions for service improvements
	Suggestions for further training for midwives in caring for women
	Suggestions for student midwives' further training in communication

6.2 Super-Ordinate Theme: Prepared to Care

The super-ordinate theme of 'Prepared to Care' arises from the emergent themes found in table 6.2. The metaphor of 'Prepared to Care' represents how the students feel about their abilities and what their attitudes are towards providing care for this client group. They recognise the challenges of delivering care but unlike the midwives do not have a 'sinking feeling', primarily because they feel educationally prepared, which their practice experience helps to build on. They identify that this group of women can feel disheartened because of their size, and are intent on exhibiting care and compassion towards them.

Table 6.2: Super-ordinate theme: Prepared to care

Emergent themes making up super-ordinate theme	How many participants mentioned theme	How many times theme was referred to by participants
Challenges of delivering care	8	43
Do not have 'sinking feeling'	8	8
Educationally feels prepared to care for this client group	7	17
Practice experience	6	15
Caring	6	6

6.2.1 Challenges of delivering care

The majority of the student midwives do not view caring for this client group as hard work, though one thought it was hard work caring for women with high BMIs in the 50s kg/m^2 range, but this did include trying to source appropriately sized equipment.

The student midwives felt that it was challenging and experienced the same difficulties in the delivery of care as the midwives in part 1 of the study e.g. abdominal palpation, listening to the FHR and manual handling, and at times found it logistically difficult to perform care particularly when the client had a BMI >50kg/ m^2. The students are very aware that when they are not present (working with their mentors in the labour ward environment), then the midwives find it very hard work to care for women with high BMIs by themselves, and this causes the students to feel concerned as this may be the situation that they will face on qualification:

> Amy There's been times when we've had to get the consultant to come in and scan because we can't determine the presentation because of maternal size. So that can be quite challenging… OK it does present challenges but you've got to work around them because that's our job and that's what we're here to do.

Connie I wouldn't say it's harder it's just more… it keeps you on your toes sort of thing. You just need to be that extra more vigilant.

Faye I've looked after a few women recently that have really raised BMIs and one woman had a BMI of 57, so that was quite hard work really. Logistically, I mean. Couldn't get the CTG monitor at all so already you know, you're thinking well we have to put an FSE on this baby and it probably took me at least half an hour just to locate a cuff that was the right size for her arm, I had to go to the bariatric unit and borrow it and then take it back, you know. The whole process took half an hour.

Zara Every time I've looked after a lady with a large BMI the midwife has sort of said to me oh, I'm glad I've got you, like it'd be hard work on my own. I don't have any difference in caring for them. I think it's literally if I went in on my own as the midwife I'd be thinking well, will I be able to manage because I know my experienced midwives have needed help.

6.2.2 Do not have 'sinking feeling'

It is interesting to note that during their interviews none of the students expressed that they had experienced a 'sinking feeling' at the prospect of looking after women with BMIs ≥30kg/m^2. As the students did not verbalise this concern during data collection, at the conclusion of their interview they were therefore presented with the following question: 'You are asked to look after a woman in labour with a raised BMI, how does that make you feel?' Their responses indicated that they appear to take caring for this client group in their stride, accepting that it was just another client and not feeling weighed down at the prospect of caring for women with raised BMIs in labour:

Amy I don't take the weight as… doesn't make me feel any different than it would be if it was of a normal BMI really, I don't… no. OK it does… it does present challenges but you've got to work around them because… that's our job and that's what we're… we're here to do.

Kate I think there's other situations where I'd go, I'm not too sure what to do with this one, so a raised BMI isn't necessarily one of them.

Isabel Personally I don't think I'd feel any differently. I wouldn't think oh my God, you know, personally I would just be like she's another patient and it's another lady who needs looking after and hopefully we'll try and get a nice normal delivery.

Lucy I don't really think I'd pay much attention to it and I'd just go in to the room and take it as I see it, to be honest.

Zara I don't have any difference in caring for them.

6.2.3 Educationally feels prepared to care for this client group

The students feel educationally prepared to care for this client group. The reasons for this are that they feel caring for the obese client is threaded through the curriculum and they are able to relate this theory education to their practice

experiences. At times, though, the realities of the situation in practice, particularly assisting at normal deliveries and perineal suturing, can prove to be daunting. One area where they believe they would benefit from further guidance in their midwifery education is to be informed how to effectively communicate the risk factors to this group of women by also referring to the underlying cause, the subject of obesity. It is apparent, however, that some of the students did not feel intimidated at all at the prospect of discussing health promotion and risk factors with the women themselves:

> Amy So I think that we've been given the education and what we need to do but sometimes, obviously, there are situations that you find yourself in in practice that you've not been prepared for. So obviously if you're doing a delivery and suturing… well some of us have been told it can be difficult but until you're in that situation you don't quite appreciate how difficult it can be.

> Sian I suppose, 'cause you can inform the mentors of what we've learnt in practice and in Uni, so yeah. I think I'm a lot more prepared for it than what they are out there doing it.... How to broach the subject with women.

> Zara But if it's someone with a higher BMI I'd go into detail of, you know, what a good diet is really but without sounding patronising sort of thing. I've explained what a BMI is, you know, if they hadn't known, and I'll just say to them like you fall in to this category due to sort of risks maybe or I'll just say like the protocol is and say it was a pool birth, we can't actually offer you a pool birth and explain why and then explain like the risks of, you know, going in well if you did have a high BMI and then sort of say but I can't offer you, you know, the MLU but I can make it like home, you know, sort of different options but still quite nice for them.

6.2.4 Practice experience

Practice experience appears to have a twofold impact on the students. Some feel that their practice experience builds on the theory taught at University, whereas others express that they do not feel enabled to communicate with this client group in the way that they would wish, because they are not observing midwives engaging with women in this way in practice. Although some of the students felt they did have the knowledge and confidence to discuss information focusing on dietary factors and the risks of having a raised BMI with the women, they were reluctant to do so because their mentors were not practising in this way:

> Faye I mean it's threaded through very much throughout our training if I remember rightly and then you're more importantly seeing it out in practice quite frequently… I think in terms of my training, you know, it's mentioned a lot and we speak about it and everyone starts to have experiences of it and… yeah, I don't… I can't think of anything else in my training.

> Lucy I've not seen a midwife do that, sensitively talk about their weight, that's something I probably wouldn't do either 'cause I've not learnt how to… to deal with that… we've not had that experience 'cause it's just not spoken about at all…. 'Cause nobody mentions it if you… if they're at antenatal clinic

it's not mentioned. If they come in for any other reason to the hospital environment it's not mentioned.

6.2.5 Caring

It is heartening that the students display care and compassion for this client group. They recognise that this group of women require more support and this is sometimes provided by an intuitive discerning approach as they do not want to upset them. The students also acknowledge that being caring and compassionate are essential requirements of being a midwife and that these qualities are demonstrated when caring for this client group. The students therefore aim to provide individualised woman-centred care in a sensitive fashion. They acknowledge that women with BMIs ≥30kg/m^2 may be more disheartened than other women in their care and endeavour to provide considerate care. The students also appreciate that because of their high risk status the women may face frightening situations during their labours, and they strive to recognise this and provide empathetic care.

Amy So for me I try and comfort them, try and just try and not make a deal of their weight and just try and work round it.

Faye I think you're very supportive when you're looking after these women.

Kate She was only a young girl and she did need, most probably, that little bit of nurturing as well, so, yeah, that's… that's kind of most probably where I come in to it and the midwife, so where we could be like the caring and compassionate people and this is why we're doing this in, you know, we've gotta make sure this is done right and stuff like that.

Isabel The extreme side was that GA [General Anaesthetic] which I thought was an absolute crying shame for that woman 'cause she was frightened. She was frightened beyond belief, you know?

Zara You can sort of tell which women might be a bit more disheartened than others and I think with them you have to approach it more… you know, gently than you would.

6.2.6 Prepared to Care: Discussion

There is a different perception from the students on the delivery of care to this client group. Whilst there is an acceptance that it can be difficult and challenging, there is not the same sense of the students being outwardly 'phased' at caring for this client group as there is with the midwives. The midwives felt it was hard work, whilst the student midwives did not view caring for this client group as being particularly so. It should be noted, however, that the student midwives felt that it was challenging and at times logistically difficult, in particular when the client had a BMI ≥50kg/m^2.

The similarity in care delivery emphasised by both samples is the difficulty encountered in attempting to assess and ensure fetal wellbeing, both antenatally and during intrapartum care. These issues with care delivery, specifically during intrapartum care, are supported by other studies (Knight-Agarwal *et al*., 2014; Singleton & Furber, 2014). What is different in this study is the realisation of how much hard work it is for a midwife by herself to care for women with BMIs ≥35kg/m^2 during labour (and as suggested in chapter 5, the researcher proposes that more than one individual is needed to care for women with high BMIs during labour), because of the requirements for continuous monitoring of the FHR:

> Faye They're always continually monitored on CTG they are undoubtedly going to have an awful like loss of contact on CTG… and midwife said oh it's so much better just having another person here because logistically, this is really hard.

The students generally feel prepared from an educational perspective to care for this client group, and mostly believe that their clinical practice builds on what they have learnt; significantly, the exception being development of their communication skills with this group of women. The students value their practice experience in enabling them to learn about the realities of caring for this client group. They acknowledge that no amount of theoretical knowledge can prepare them for the practical difficulties of facilitating a normal delivery for women with high BMIs and suturing the perineum, and for the visual impact of their first encounters with women with very high BMIs. There was a feeling of being overwhelmed and shocked by the size and appearance of those with BMIs >50kg/m^2, as was also experienced by the midwives on their first meeting with the women:

> Faye I honestly think the hardest thing for me is just… it's the visuals. It's, you know, I haven't seen many people like that even walking round town or anything and then suddenly you see them.

Murray (2013) believes that this can be a normal reaction from health professionals. Both the midwives and the students agree that they feel unprepared for the size of the very high BMI women in their care because it is outside the realms of both groups' professional and personal experiences. It has been suggested that in order to provide sensitive care, health professionals should anticipate their reactions on first meeting a patient who is morbidly obese, avert their gaze from their bodies, aim to maintain eye contact and express an interest in them as individuals (Murray, 2013). A particularly interesting training technique was used with nurses on a bariatric ward in England who were given an opportunity to wear a 7kg bariatric suit so that they could experience the difficulties that overweight/ obese patients can have with their mobility and everyday tasks e.g. tying shoe laces

(Nursing Standard, 2013). The suit was purchased as a training aid for the nurses so that care could be improved for bariatric patients. It could, however, be an excellent teaching tool for student midwives in visually preparing them to care for obese clients and also to aid communication encounters, particularly when the women are exposing their bodies for routine care delivery.

As students' practice experience is deemed to be pivotal in preparing them to become a competent health professional (Sporek, 2015), they want to observe their mentors communicate with women in a confident and not embarrassed manner in discussing the sensitive topic of obesity. Though some students may feel that they have been educated and are able to communicate the risks and discuss weight management with the women, they are reluctant to do so for fear of embarrassing their mentors in this way (this will be discussed further in Communication Truths). Other students have stated that they would like workshops to develop their communication strategies with reference to discussing weight management and the underlying issue of obesity, and how to best answer women's direct questions of whether their weight is implicated in difficult care delivery. Ideally, they want to link theory to practice by modelling their role on their mentors in practice (this will be discussed further in Communication Truths and Mind the Gap).

The students did not experience 'that sinking feeling' that midwives felt at the thought of caring for a woman in labour with a very high BMI, but were able to take it in their stride when caring for this client group:

Amy That's our job and that's what we're here to do.

The midwives on the other hand experienced great anxiety, worry and stress, and at times a 'powerless' feeling, when caring for this client group. Within chapter 5 the super-ordinate themes of 'Negative Impact' and 'That Sinking Feeling' encapsulated the negative aspects of what it meant to the midwives to care for this client group, but surprisingly to the researcher this was not representative of how the student midwives felt. This may be because the students are training at a time when the obesity epidemic is part of practice (Johnson, 2009). The participants in this study feel that pregnant women with BMIs ≥30kg/m^2 appear to represent at least 50% of their overall client group and therefore caring for them is part of normal everyday practice. The midwives in this study, however, have generally practised prior to the obesity epidemic (CMACE, 2010) and have therefore experienced a change in practice and client demographics (CMACE/RCOG, 2010; NICE, 2010). It could also be because students do not have responsibility or legal accountability for the clients in their care, as that rests with their mentors (NMC, 2012). Midwives are not at all times working with or mentoring a student, and it can be considered

particularly hard work caring for this client group by themselves whilst delivering intrapartum care. Students, meanwhile, are always under the supervision of their midwife mentor, though at the point of qualification this can be indirect supervision (NMC, 2008). However, they maintain supernumerary status within the clinical setting throughout their pre-registration programme of study (NMC, 2009c).

The students endeavoured to provide caring, compassionate, woman-centred, holistic and individualised care to this group of women, as did the midwives in the study, and this was before the 6Cs (care, compassion, communication, courage, commitment and competence) became requirements underpinning midwifery practice (DH, 2012). They take a considered and sensitive approach to caring for this group of women because they believe that they can become easily disheartened and therefore require more support. Like the midwives, they aim to care for the women without causing them to become upset or distressed by poorly considered communication or insensitive conduct of care. The students are therefore displaying empathy for this group of women which is facilitating a caring relationship with them (Pairman, 2006).

In summary, the students feel generally enabled by their University education to care for this client group, but would like further education on how to communicate more effectively with and how to respond to difficult questions from the women. They would also like to be better prepared on how to school their response when meeting for the first time women who are morbidly obese. It is apparent that they have adopted the underpinning philosophy of empathetic midwifery care and feel confident that their education provides them with the necessary knowledge to deliver care for this group of women. The students value their practice experience in that it allows them to assimilate theory into practice and presents them with opportunities to understand the realities of delivering care to this client group. The students do, however, have a major criticism regarding the practice environment, in that they consider their mentors to lack training and education on how to communicate with this group of women. The students believe that this is detrimental to the development of their own communication skills, in that it can inhibit demonstration of their knowledge and potentially lead to a lack of confidence in their own abilities to converse with this client group. It is interesting that the students have a different perception and viewpoint to the midwives on delivering care to this client group. They do not view it as being hard work, or experience that sinking feeling at the prospect of caring for this group of women, but do accept it is challenging at times. The students do not appear unduly concerned by the prospect of caring for this group of women, take caring for these clients in their stride and merely consider it to

be part and parcel of their everyday practice. The students appear to be aware of and sensitive to the care needs of this client group. They endeavour to provide kind and compassionate care and recognise that in certain situations the women may feel additional anxiety, and they strive to provide support and comfort in such circumstances, thereby demonstrating the essential qualities required for midwifery practice.

6.3 Super-Ordinate Theme: Size Matters

This super-ordinate theme comprises the emergent themes found in table 6.3. The metaphor 'Size Matters' represents the weight stigma/judgements regarding the size of the women made by other healthcare professionals, as noted by the students; the acceptance that raised BMIs are the norm; the relative sizes of the student midwife/ midwife and the women; and the awareness or lack of awareness the women themselves have of their raised BMIs.

Table 6.3: Super-ordinate theme: Size matters

Emergent themes making up super-ordinate theme	How many participants mentioned theme	How many times theme was referred to by participants
Size of student midwife and midwife	8	17
Size of woman	7	21
Women's awareness and lack of awareness of their size	7	16
Judgements	5	21
Raised BMIs are the norm	4	6

6.3.1 Size of student midwife and midwife

The size of the student midwife and midwife was felt to be important by the students. Some students felt that midwives with BMIs ≥30kg/m^2 used their size and humour to positively engage with the women. This was perceived by the students as enabling the midwives to initiate rapport with the women. Midwives being overweight themselves, however, did not always mean that they would discuss the topic of obesity with the women.

The students felt that it could be seen as hypocritical for them and midwives to discuss dietary factors and weight loss with women if they were overweight themselves. They also considered particularly thin midwives advising obese women on dietary factors might not be viewed positively by the women and had the potential for inadvertently causing offence.

Midwives with raised BMIs were perceived as not being good role models for this type of health promotion (dietary factors and weight loss). The students felt that if obese midwives were giving dietary advice, then they should be taking that advice themselves. Therefore on the one hand midwives having a raised BMI can be viewed positively in enabling non-offensive communication with this client group, and on the other hand negatively in that they are not viewed as being helpful health promotion role models:

> Isabel I'm with community midwife at the moment and she is what she calls amply charmed and she has a way with the bigger ladies because, she'll say herself, I'm amply charmed, if the midwife is bigger, they can relate to and because they obviously have the same sort of struggles themselves with diet and you know, and so they can relate to that person, you know and there is like a bit of a connection there.

> Lucy I could make a joke myself and say I know how you feel, you know, I know it's difficult because I feel the same but then you have women who are not taking advice off people… oh give me dietary advice, look at the size of her! So it's… it's quite difficult but then they might get offended if somebody very particularly thin talks to them about their diet. That can make them feel a little bit… you know, well I'm not skinny like you and it's, you know, so I still think it's quite difficult that even if you are overweight yourself somebody taking advice from you, because it is a difficult subject to tackle 'cause it's emotions that are involved in it more than anything.

> Zara I think if a midwife with a high BMI is sort of telling a woman with a high BMI, you know, you need to lose weight, you need to do this, it can sound a little bit hypocritical.

> Faye I mean I've always just been quite active and so my weight has been controlled but I'm also of the opinion that if I'm a health profession and I'm trying to preach something, you know, I couldn't be a smoking cessation midwife and smell of cigarettes. And I just think that if I'm trying to promote something then at least promote it from yourself first.

6.3.2 Size of woman

Students are gaining experiences of caring for women with BMIs in the 50s kg/m^2, with the highest stated as BMI 57kg/m^2. It appears that some students are visually assessing women with BMIs in the 30s kg/m^2 as appearing to be 'normal' size (low risk), and they rationalise this by suggesting that they see so many women with BMIs in that range. This suggests that the lower range identification of obesity in women is being normalised within maternity care.

The students have at times been stunned at the size of the women with high BMIs as it has been outside their realm of personal and practice experience, and they feel they have not been visually prepared for these encounters. They are also surprised at how young some of the morbidly obese clients are. Despite at times feeling shocked they endeavour to see beyond the obesity to the individual:

Faye BMI of 57. Surprised me that they have that BMI because I think you know, they don't… they don't look it in my eyes. Whether it's sort of getting used to sort of the nation being bigger so it surprises how many people we book.

Kate Raised BMIs can be a little bit sort of ambiguous, you know, you can have a woman with a raised BMI but she doesn't look big.

Kate She was only 19 with a BMI of 42 and she had a BMI of 42. So I just found that really shocking, especially with her only being a young girl as well.

Faye I honestly think the hardest thing for me is just… it's the visuals. It's, you know, I haven't seen many people like that even walking round town or anything and then suddenly you see them… I remember the woman that I took ages trying to get her blood pressure, you couldn't tell she was pregnant, you know, it was just adipose tissue and she was huge and it's shocking an image because she was so big…. I wouldn't change how I treat them or speak to them or behave in front of them.

6.3.3 Women's awareness or lack of awareness of their size

There are opposing viewpoints on the women's awareness of the implications of their size, with some students suggesting that they have got to be aware that the difficulties they are experiencing in care delivery are because of their obesity. Conversely, others contend that as their weight has become normalised in society and as such is normal to them, they will not therefore develop the gradual suspicion that when the student midwife cannot listen to or monitor the fetal heart rate, it is because of their size. Other women whom the students have 'booked' with a BMI at 30kg/m^2 or in the low 30s kg/m^2 have been surprised and shocked because they did not realise that their weight would classify them as being obese.

The students strongly believe that the majority of women they care for with a BMI ≥30kg/m^2 are not aware of the risks of being obese when embarking on a pregnancy. The students believe that after they been informed of the risks, the women do not appreciate or understand the seriousness of these risk factors in some cases.

The students speculate that the women must be conscious that when there are difficulties with care delivery, it is due to their size. This could be because they assume that an obstetrician or midwife has explained the difficulties the women may encounter to them or assume that the women already know. As discussed under the 'Truthful Communication' theme, midwives are not explaining that the difficulty of care, e.g. listening to FHR, is compounded by the women's size:

Zara I don't think that women realise that they do have like an overweight or obese BMI because I was shocked when I saw mine. I don't think women actually realise that they are counted as obese or overweight until they come in and you sort of do it on the chart for them and a lot of them go oh God, I didn't realise sort of thing and then if someone, you know, really wanted a

pool birth and then you say well your BMIs too high, I think they can be a little bit disheartened when they didn't think they were that big to start off with.

Kate She was a big lady. She was about three times the size of me and it's kind of like, I wonder if she knows like the impact and obviously, it's that what made me think about it even more. I think for me it's wondering whether she understands how much work it is for the midwives to look after her and her baby because of her size. I don't think she's sees it at all as sort of an implication whereas obviously me and the midwife are like, she's quite a big girl and this could happen and that could happen but I don't think she sort of sees it at all or, you know, because it's just normal for her.

Connie I do think that women they don't understand the risks to being overweight.

Amy But I think deep down, I think they do know. They know that some of the problems that we experience is because of their size.

Faye I think they're sort of well aware that they are higher risk.

Lucy There was one lady after a caesarean section that with her first caesarean section she had an infected wound and she was quite open with, well that was probably due to my size.

6.3.4 Judgements

The students are aware that there may be judgements passed on this client group, and of the stigma associated with obesity, but they themselves did not utter anything judgemental during their interviews. Judgements passed by other healthcare professionals can be both verbal and non-verbal expressions. Students view this group of women to be considered differently by other healthcare professionals in relation to other high risk groups. Negative judgements are passed by others regarding the expected interventions required and therefore they articulate surprise when this client group achieves a normal delivery. The students rationalise that there are healthcare professionals who are judgemental and that these judgements are not just levelled against this client group:

Faye I think that there is definitely stigma there, you know? I think they're viewed a bit differently to high risk women with different morbidities if you know what I mean? Like, if a woman we were looking after her in labour and she was high risk because she had raised blood pressure or something, but when it's a raised BMI there are definitely eyebrows raised or like oh my God, a BMI of 57.

Isabel I mean I've heard negative comments like oh my God! There's one, BMI of 45, do you know what I mean? And you think well, you know, she's an actual person and she's got to, you know, have a good a birth experience as we can give her really, do you know what I mean, regardless.

Faye Everybody was surprised that they had normal deliveries.

Lucy But I do think as a whole the people look down on them. But then, if you're that type of person anyway to look down on people and be judgemental you're gonna find an excuse to do it whether it's BMI or not aren't you really?

6.3.5 Raised BMIs are the norm

Caring for women with raised BMIs is becoming the norm in practice. There is an acceptance that as a nation we are getting bigger and therefore the maternity population will also be bigger. Women with BMIs of 30kg/m^2 and within the 30kg/m^2 range are considered to be the norm in practice.

Faye I'm surprised how many women that we have with a BMI of over 30.

Isabel We are getting bigger and that's the norm at the minute, you know?

Zara Well I think 30 to late 30s (BMIs), they're like everyday women you know?

6.3.6 Size Matters: Discussion

The super-ordinate theme of 'Size Matters' was the theme most similarly represented by both the midwives and the student midwives in the study. It appears that caring for women with BMIs ≥30kg/m^2 has exponentially increased for midwives since the obesity epidemic began (Chu, 2011), whereas the students consider it to be the 'norm' in practice. From this relatively small study the findings are indicative that both the midwives and students believe obese women equate to 50% of the maternity population; and as discussed in chapter 5, though recent figures dispute this finding (HSIC, 2016), incontrovertibly at the booking appointment at least 51% of the maternity population in the North of England are either overweight or obese. Therefore, undoubtedly, it is an ongoing problem for the maternity services, especially with recent predictions showing that the prevalence of being overweight and obese in the adult population will rise to 70% by 2034 (Public Health England, 2015). Further startling predictions by the UK Health Forum, who are collaborating on the *World Health Organisation Modelling Obesity Project,* suggest that even this is a severe underestimation of future obesity projections for the UK (Nainggolan, 2015). The study suggests that European countries will be facing an obesity crisis of gigantic proportions by 2030 (Nainggolan, 2015). Within the UK and Ireland obesity levels are predicted to have the worst case scenarios by the WHO, who suggest that within 15 years almost all adults will be overweight (90% of men and 85% of women). Breda and Webber (2015), who co-presented these findings at the *22nd European Congress on Obesity* in Prague (6th May, 2015), stated that there needs to be radical action taken to alter these future projections of obesity, and made suggestions for a 'whole-society approach' to tackling obesity with more government

regulations, such as a tax on sugar and better labelling of processed foods (Cooper, 2015).

An interesting finding from both groups of participants is that they view women with BMIs in the low 30s kg/m^2 to appear normal size, because they are seeing so many women of this size. These findings were supported from the midwives' perspective in the Schmied *et al*. (2011) study. This clearly suggests that there is a normalising of obesity in maternity care. Heslehurst *et al*. (2007b) have previously found that the women themselves are normalising their weight within society and this study's findings are that both groups of participants are mirroring the societal influences of size perception. The student midwives support the midwives' view that some of the women they have cared for deem themselves to be of normal size, and are therefore not obese and risk averse.

Both groups of participants have experience of booking women with these BMI determinants and for the women to be unaware that they have reached the threshold of obesity with its inherent risks factors, though the term obesity is not used by either the midwives or students. Both have also encountered women who are embarrassed and apologetic about their size and who are open to accepting care and guidance. Some women, however, are perceived to consider their size to be normal, and are considered not to believe the implications and risks of having a high BMI are of relevance to them (Knight-Agarwal *et al*., 2014). Whilst the midwives have experienced some women's attitude upon these facts being communicated to them as being unpredictable and occasionally bordering on aggressive, the students have not.

Both groups are aware of negative judgements being passed by colleagues who are not directly caring for the women with raised BMIs and this has led them to feel ill at ease with these comments, which have mostly been uttered in the labour ward setting. The students attempted to rationalise judgemental behaviour, stating it is because the personnel involved are generally judgemental and it is not specific to this client group. Murray (2013) concurs and suggests that at times practitioners do allow their personal prejudices to influence their interactions with patients. This study replicates the findings of Deery and Wray (2009), who believe that some midwives will judge this client group because of the intrusion into midwifery practice of societal discrimination regarding the women's size and appearance. Some students feel that certain obstetricians perceive women with raised BMIs differently to other high risk groups, focusing on their obesity, and although they may not be vocally judgemental their 'internalised negative views around obesity' may be what is being transmitted to the students (Deery & Wray, 2009, p.15).

This finding indicates an area for educationalists to focus on in the provision of educational strategies on how to provide non-judgemental care, because though the midwives and students in this study strive not to judge they are aware of colleagues who are doing so. The introduction of the Department of Health's *Compassion in Practice: Nursing, Midwifery and Care Staff* document (2012) advocated the six 'Cs' (care, communication, commitment, compassion, competence and courage) as requirements to underpin in this instance midwifery practice, and they are now being threaded through midwifery pre-registration curricula (Gibbon, 2015). Being courageous could be seen as staff challenging judgemental attitudes. Another factor that may also reduce negative attitudes is the recent publication of the latest NICE guidance *Intrapartum care: Care of healthy women and their babies during childbirth* (2014a, p.21), which references how maternity healthcare professionals should behave towards women during care delivery, stating that 'senior staff should demonstrate through their own words and behaviour appropriate ways of relating to and talking about women and their birth companions'.

A point to note is that midwives caring for this client group are either self-selecting or are being selected to care for this client group. The midwives are not making personal judgements towards the women themselves, although there is a suggestion in the study that they can have preconceived ideas, before they meet a woman with a high BMI that they are allocated to care for in labour, that it is going to be hard work. The students do not take this view.

The size of the midwife appears to be an important factor to both groups in the study and appears to have implications for care delivery, specifically in communicating with this client group. The students view midwives with a BMI ≥30kg/m^2 as not having difficulties communicating with the women, because they adopted a lighter tone making reference to their own size; this finding was supported by the midwives, though has not been fully endorsed by other midwifery studies (Schmied *et al*., 2011; Knight-Agarwal *et al*., 2014). Anecdotally, it has been suggested by Slimming World's public health manager (cited by Bird, 2014) that obese women would be more comfortable with an empathetic interaction with a midwife with a raised BMI rather than a 'size ten' one. This supports the suggestion by those midwives with normal range BMIs in this study that they are right to be concerned that, because of their own size, they could be perceived as lecturing or criticising the women. Some students consider these encounters with 'thin' midwives could cause offence to the women. From a student perspective, some midwives in this group were considered to be awkward and occasionally embarrassed in their body

language and general communication with the women, particularly antenatally, which the midwives themselves have concurred with.

It was verbalised by some midwives with normal range BMIs that those of their colleagues with high BMIs could be construed as not being good role models in health promotion, and this was supported by the students. Bird (2014) contends that, like the general public, midwives are also battling with their own weight issues and that this could be construed as a judgemental attitude on behalf of fellow healthcare professionals. The students themselves want their mentors in practice to be good health promotion role models to both themselves and the women in their care, because they are well aware that obesity is not just a problem in maternity care but is a public health issue. This is supported by Pett (2010, p.6), who strongly stated in an article 'Why should obese women listen to obese midwives?' that as members of the NHS we should be setting a healthy example, otherwise our credibility is severely undermined. Yet despite the Government proposing in 2009 (DH, 2009a) that there should be bespoke weight reduction programmes developed for frontline NHS staff, and that it should be made widely known to staff that their organisations have set targets to reduce obesity within their workforce, recruitment for the NHS does not stipulate a weight requirement (DH, 2009b; DH, 2011a). This is despite the White paper *Healthy Weight, Healthy Lives, One Year On* (DH, 2009b) suggesting that health promotion information from healthcare professionals is also supported by their own behaviour (weight).

In this study both the midwives and the students concur that when women with raised BMIs book their pregnancies they are unaware of the risk factors associated with having a BMI ≥30kg/m^2. This supports the findings of a study conducted to explore obese women's perceptions of obesity as a risk factor in pregnancy (Keely *et al*., 2011), which determined that the participants only became aware of obesity as a risk factor during their current pregnancy. This led to anxiety and also incredulity as to why they had not been informed before they became pregnant of the risks of obesity, despite informing their GPs that they were planning a pregnancy (Keely *et al*., 2011).

It could also be argued that this would engender better relationships between the women and the midwives, because the women who would still commence a pregnancy with raised BMIs would at least have an awareness that there are risks attached to doing so. As the midwives would not be breaking this negative news to the women they could focus on the positives of the pregnancy, whilst ensuring that information is conveyed to the women about managing the risks and managing their weight (Lee, 2014).

There is a presumption by both groups of participants that when there are difficulties with care delivery, e.g. abdominal palpations and fetal wellbeing assessment, the women must surely realise it is because of their size. However, the students observe that this is not directly communicated to the women, despite women asking if it is because of their size (which will be discussed further under Communication Truths). The students speculate the women must be aware and make the assumption someone else would have communicated this to them, but they have not observed this information being communicated; however, the midwives intimate that this is not the case. This suggests that the students believe that the women should be informed of the potential problems they may face in care delivery.

In summary, Size Matters appears to represent the views of both the midwives and students. There are slight differences: most notably, having interviewed both sets of participants independently the researcher suggests that the students are under the misapprehension that the midwives inform the women that they may have potential problems with care delivery due to their BMI when the students are not present. Another difference is that the students do try to rationalise judgemental behaviour. The positive aspect of judgements conveyed by others is that the students are aware that this is not the way to behave and that non-judgemental care is how they should be practising. They endeavour to see beyond the women's obesity and to behave towards them in a way that is no different to other women in their care.

6.4 Super-Ordinate Theme: Communication Truths

Table 6.4: Super-ordinate theme: Communication truths

Emergent themes making up super-ordinate theme	How many participants mentioned theme	How many times theme was referred to by participants
Students' perception of midwives' communication issues with women	7	44
Sensitive communication	7	19
Students' reluctance to express their knowledge	4	9
Truthful communication	4	5

The super-ordinate theme 'Communication Truths' comprises the emergent themes found in table 6.4. The metaphor of 'Communication Truths' details the communication issues and difficulties that the students have experienced and observed in the practice setting; their own inability to have the confidence to express

their knowledge; and an acknowledgement and acceptance that this type of communication needs to be tailored with sensitivity and honesty.

6.4.1 Students' perception of midwives' communication issues with women

The clear perception of the students is that the midwives do not address the issue of obesity with the women at the booking appointment. They give a number of reasons why this may be, such as time constraints, midwives not having been educated on obesity as it is a fairly new problem in maternity care, and simply because it is such a sensitive topic. Two students did observe a midwife being very direct with her communication with women, making reference to obesity, and this made them feel very uncomfortable and embarrassed. The students observe the majority of midwives referring to the women's BMI measurement and informing the women on the investigation (GTT), drug therapy (clexane) and referrals they require (e.g. consultant, dietitian), but significantly there is no reference made as to why this is. The subject of obesity is either avoided completely or skirted around. The reason for determining the women's risk factors appears to be identified only as it being part of the hospital's policy for determining risk, and therefore the implication is that it is detached from the midwives' actions (they did not decide the policy). It effectively acts as a barrier for the midwives so they are not put into a position of discussing a sensitive subject (obesity) with women that they feel ill prepared/educated for. The students accept that the midwives may not want to broach the topic of obesity because they do know how to do this, and alternatively have observed some of the women not wanting to engage in receiving information on healthy eating. The students acknowledge that approaching the topic of obesity can be a sensitive issue for the women and difficult for the midwives because they have not received training in this area of communication. Further to this, the students believe that communication needs to be tailored and careful in this area, so as not to cause offence to the women. The students think that midwives' communication with this client group is not being done well, but that midwives do their best in these situations. There is therefore a sense of understanding from the students about the lack of skilled communication with this client group. The students make suggestions on how improvements can be made in communication encounters. One idea is to explain to women antenatally about the potential care delivery problems they may encounter (e.g. listening to the FHR, abdominal palpation), thus the women are prepared and communication can become less fraught.

In some Trusts the referral to a dietitian is an ‘opt in’ service which most of the women decline when offered by the midwife, and the advice which is given is the same for every woman e.g. to eat a healthy balanced diet. Some Trusts do have leaflets which give information on what comprises a healthy diet and the inherent risks of obesity, which are given to the women. The students want the facility to engage with women on what encompasses a healthy diet specifically for them and not just to refer the women for a one-off appointment with the dietitian, which in some Trusts is a group session and not individualised for the women:

Sian I think because they’re trying to get all this information in this hour appointment that they’re saying that information gets skipped but I do think if women start asking questions because it’s fairly new in the world of midwifery and a lot of the community midwives have been qualified for a long time, maybe their annual updates don’t incorporate obesity as much as what we receive in Uni. So I do think that has a major influence on it and sometimes as well it’s hard to tackle the information. The midwives don’t know how to broach the subject with the woman and you know, she may not want to talk about it at the booking appointment.

Connie During the antenatal period I’ve found that the issue of being overweight is not addressed at all by midwives. I think it’s cause it’s a sensitive issue. Midwives don’t really know how to approach it.

Faye I think you do always have this sort of be more careful with your language and stuff like that but I don’t know whether that’s more from a midwife’s point of view than from the woman you’re caring for’s point of view. You do tailor your language, definitely. In the antenatal period when you’re booking them in and in our Trust we have an obesity proforma. So having to say oh these are extra, additional things we have to do and it’s because of your raised BMI and you know, we skirt around the issue a little bit. We don’t just face it full on.

Sian I did have one experience in the community with one of the community midwives that was quite direct to the woman which wasn’t very nice to sit and listen to. Just referring back to her being obese all the time, you know, this is because you’re obese. This is due to, you know, because you eat too much and not burning the calories off and although sometimes you need to be direct but not direct to a point that’s going to be hurtful to that woman.

Isabel So everything’s skirted round and danced around but never spoken about. I think they automatically assume that that person knows that their size has an implication on their care now whether it’s said at the likes of joint med clinic or whatever, you know, I don’t know and maybe it should be something that’s brought to their attention by the obstetrician, do you know what I mean, to say, you know, because of your size the implications are…

Lucy I do think it’s informed decision of going to the dietitian but it’s very skirted over, I think because you don’t wanna upset people because people are normally quiet about their weight. I’ve not seen a midwife do that, sensitively talk about their weight, that’s something I probably wouldn’t do either ‘cause I’ve not learnt how to… to deal with that… we’ve not had that experience ‘cause it’s just not spoken about at all but nothing is ever mentioned about an increased BMI at all.

6.4.2 Sensitive communication

The students consider that sensitive communication is a prime requisite for this client group because they do not want to upset them or cause offence. Ultimately, however, they are aware that underlying their communication is avoidance of why the women have risk factors and require different care and care delivery issues. The students are aware that the women themselves can feel sensitive about their weight, and therefore may be reluctant to engage in communication about their size and its related risk factors in pregnancy. There is a consideration that women need to receive individualised care because some can be more disheartened than others on receiving the news that they have a raised BMI and about its risk implications:

> Zara I think sometimes you need to approach it quite carefully, you know, saying due to your high BMI we need to refer you to this, this and this 'cause they want like you know, want all the normality and just because they're a bit bigger they have to get referred to all sorts of people.
>
> Amy You've got to give extra support to them, extra advice. They can be quite sensitive to it so it's our role to give that advice in a sensitive way.
>
> Isabel It was avoided because it is a touchy subject isn't it and it's something that people that people don't wanna, you know, bring up.

6.4.3 Students' reluctance to express their knowledge

It appears that the students would like to be able to communicate more effectively with this client group, but are reluctant to express knowledge they have derived from University on the topic and issues of obesity. The reason is that they are aware their mentors do not feel comfortable addressing the issue as they have not observed them discussing it with the women. The students in these situations do not want to cause embarrassment to their mentors or demonstrate that they may be more knowledgeable, whereas other students who have attempted to engage the women on the issues relating to obesity in pregnancy have been actively discouraged from doing so by their mentors:

> Connie Obviously as a student you feel 'cause the midwife's there you don't want to say too much about an issue that they're not willing to address themselves. I think it's more down to the midwives as well because they need to approach the subject as well. If we're getting taught to say to these women then that's fine but if the midwives aren't approaching it as well then you feel a bit like that you shouldn't bring that up as a student.
>
> Lucy I've not seen a midwife do that, sensitively talk about their weight, that's something I probably wouldn't do either 'cause I've not learnt how to deal with that.
>
> Lucy I suppose if we were then in a booking in appointment and you've got your mentor there and you started talking about it I'm sure they'd be ooh! Oh my goodness! Don't! Because they wouldn't broach the subject either.

Sian Personally, I would but when I have I'm always told that I talk too much.

Faye You have to, you know, be more careful with your language and stuff like that but I don't know whether that's more from a midwife's point of view than from the woman's you're caring for point of view.

6.4.4 Truthful communication

Students do not answer the women truthfully when asked directly if the difficulties the students or midwives are facing with care delivery are because of the women's size. They either avoid the question, say no, or give another not wholly truthful explanation, but this behaviour is only mirroring their observations of their mentors' communication. The reason that the students do not want to respond truthfully to the women, and inform them that it is because of size that there are difficulties with care delivery, is they do not want to introduce negative elements into their encounters with the women, upset them or cause them offence. Ideally, they want to know how they should respond in these encounters and work with midwives who have undergone training to respond effectively and truthfully, so that they can use their mentors in practice as role models so they have learnt these skills under supervision before they qualify:

Amy Well I've had women say to me is it because I'm fat? Is it because of my size that you can't pick up the baby's heartbeat? Whether it's because they've been told that throughout the pregnancy I don't know, but I have had women say that to me. And as a student I said no, no, it's just the way baby's lying. I've tried to cover it up and maybe that's the wrong thing to do but I don't like for them to think that, especially when they're in labour you don't want them thinking negative thoughts.

Isabel How to address it? Without making them feel awful… because you're so big we can't find the baby's heartbeat, no, I wouldn't say that. I wouldn't say, it's just, you know, I think it is because it is such a touchy subject and people don't wanna upset a lady who's in labour.

6.4.5 Communication Truths: Discussion

The students express a different perspective on the communication difficulties experienced by the midwives in part 1 of the study. They provide a unique view of communication encounters between the midwives and the women, and an independent analysis and outlook on how this impacts on their own communication interactions.

One of the underlying aspects of concern to the students was their general perception that at times there is limited and reluctant communication with the women by the midwives, and this supports the findings of Schmied *et al*. (2011):

Isabel I don't think it's handled well and we basically we have to make the best of a bad job don't we, do you know what I mean and try and make them

> feel as comfortable as possible and by the time we get to them it's a little bit late in the day.

Generally the students disagree with the manner in which the midwives communicate with this client group, i.e. avoidance and a marked reluctance to broach the issue of obesity, though there is an awareness of the difficult position that midwives can face in these communication interactions. Yet, findings from a study on obese pregnant women suggests that midwives' reluctance to discuss obesity with them can contribute to distress in pregnancy for this group of women (Furber & McGowan, 2011).

The students feel that there is a tendency to adopt what may be deemed the easier route by the midwives in communicating with this client group, in that they hide behind BMI measurements and linkage to prevailing Trust policy, particularly when conducting antenatal care. In contrast, the midwives themselves have developed this strategy of communication to enable them to discuss risk factors based on the BMI measurement with the women. This was at odds with findings from a survey on 6,252 women with a spectrum of BMI measurements, i.e. underweight, normal weight to overweight, which discovered that 63% of the respondents felt that their midwives did not explain or discuss their BMI measurements with them, with 37% stating that their midwives did discuss weight issues with them (Russell *et al.*, 2010).

It could be argued that focusing on policy requirements is not providing the women with individualised, woman-centred care, but rather the midwives are concerning themselves with task-oriented care (Browne, O'Brien, Taylor, Bowman, & Davis, 2014). This fundamental avoidance of the topic of obesity is however supported by midwives across the globe (Biro *et al*., 2013). There is a sense of frustration from the students that during antenatal appointments the midwives focus their communication with the women solely on the BMI measurement and not on the underlying fact that the women are obese. The midwives themselves give their reasons for skirting around the issue of obesity. They are aware that it is a sensitive topic, they do not want to upset the women and they do not feel they have had the training to enable these discussions to develop to any depth.

The midwives at times can feel powerless communicating with this client group because whilst to some extent they are able to communicate the women's risk factors to them, which supports the work of Nunes (2009), they are unable to advise them on how much weight they should gain in pregnancy (NICE, 2010) or how they can reduce their inherent risk factors. This sense of powerlessness is not exhibited

by the students, but this again could be because they are not totally responsible for the women in their care despite being on the point of qualification.

Two students did observe a midwife communicating with women in a very direct fashion and using the term ‘obesity’, and this made both of them feel embarrassed and uncomfortable.

> Sian I did have one experience in the community with one of the community midwives that was quite direct to the woman which wasn’t very nice to sit and listen to.

They felt the interactions lacked sensitivity, replicating a finding in the Schmied *et al*. (2011) study. The midwives and the students in the study are at pains to provide sensitive communication with the women because of fear of causing upset or offence, a fear supported by other studies which have suggested that women can become very upset at being informed that their weight is causing difficulties with care delivery (Furber & McGowan, 2011; Nyman *et al*., 2010) and have felt offended and stigmatised by healthcare professionals’ communication (Heslehurst *et al*., 2011). Yet, a study which investigated why women declined being referred by their midwives to a weight management service found that the women were not offended by the referral from the midwife or the manner of the midwives in discussing it (Patel *et al*., 2013). Conversely, another study found that women were upset at being referred to a weight management service (Atkinson *et al*., 2013), thus suggesting that obese women’s responses can be wholly unpredictable, which indeed is a finding within this study. The students in this study expressed a desire to be able to discuss what constitutes a healthy diet and personalised weight management with the women themselves, rather than referring them to a weight management service, which in most cases is not an individualised service but a group session (this will be discussed under Mind the Gap).

The most discernible cause for concern in this study regarding communication is when the women directly ask the midwives and students if problems in routine care delivery are attributable to their size. Both invariably reply in the negative. This subsequently causes unease on the part of both the midwives and students who ultimately have a priority to build and sustain a close rapport with the client, therefore enabling a partnership to develop for effective communication interactions (Carolan, 2013). Although being honest and open with women was advocated and acknowledged by healthcare professionals in a study by Heslehurst *et al*. (2011b, p.174), being informed that their ‘little bit of extra body weight’ was causing difficulties with care delivery (ultrasound scans) initiated anger and complaints from the women. Whilst not wishing to cause upset or trigger angry responses in the

women, the sense of unease experienced by both midwives and students could be attributable to the fact that they may be aware that not being truthful is affecting their professional identity and core values of being a midwife (NMC, 2012) and their subsequent relationship with the women. This is of significance as one of the themes of the new 'Code' (NMC, 2015) stipulates professionalism and trust, yet how can the participants inspire trust if they are not truthful in their communication with this client group.

The sense of unease could also potentially be exacerbated because the participants feel the women are aware that they are not being totally honest with them, and this can create distrust from the women towards the midwives and student midwives. This is particularly relevant and supports Nyman *et al*. (2010) who found that women were suspicious that if there were difficulties with care delivery, midwives would talk about them when they left the room. On occasions, however, when midwives have been truthful and informed women it was because of their weight that they were having difficulty listening to the FHR, the women have felt devastated and guilty that they have not lost weight before becoming pregnant, a similar result to that of Furber and McGowan (2011). Berg (2005) contends that in order to provide genuine caring for high risk women, midwives must be able to inspire trust, and that demonstrating integrity is a cornerstone of developing a trusting relationship. Yet the interactions in these situations are not open and honest as advocated by the NMC (2015), and this causes the participants to feel uneasy in their relationships with the women. This is of significance and supports the study by Hunter, Berg, Lundgren, Olafsdottir and Kirkham (2008), who found that midwives rated their relationships with women in their care to be highly important for them to achieve job satisfaction. The women themselves believe that the quality of their relationships with midwives can either enhance or mar their birth experience, which supports the work by Hunter (2006). It is a given, therefore, that trust is an essential component in this reciprocal relationship (Pairman, 2006), yet the midwives and students appear to experience great personal difficulty with these interactions with the women despite the students' motives being altruistic and the midwives' motives being a mixture of both altruism and self-protection (not wanting to upset the women and being fearful of unpredictable reactions such as anger from them). Like Hunter (2006, p.309), this study argues that when midwives are on the receiving end of hostility from women, 'emotion work' (emotional labour) is required. In essence, they need to utilise part of their emotional stores to ensure they can manage a challenging situation. Hunter and Smith (2007, p.860) define 'emotional labour' as the mechanism that nurses (midwives) utilise to help them to manage their feelings

appropriately in situations, essentially suppressing emotions in a professional arena to ensure others feel cared for. These interactions could therefore be having an emotional cost to the midwives and students because they know they are not being truthful with the women whilst they are striving to deliver sensitive care to this client group; thus, as Raynor *et al.* (2014) suggest, demonstrating emotional awareness is at a potential emotional price for them.

It is evident that in exchanges with women when they ask directly if their size is affecting care delivery, the midwives avoid being open and transparent. The students verify the midwives' behaviour and confirm that they are modelling their mentors in skirting around discussing obesity related issues of problematic care delivery. This portrays a negative connotation to role modelling and is supported by Armstrong (2008), who believes that if student midwives do not have knowledge or confidence in a topic area, they may adopt negative aspects of role modelling behaviour. This current study also supports the findings by Felstead (2013), who conducted a study to explore the relationship between student nurses' professional development and role modelling, and found that because student nurses want to 'fit in' they will emulate their mentor's behaviour.

What is apparent from both the midwives and the student midwives is a sense of disquiet about not responding as truthfully as they could when the women ask direct questions relating to their size and its implications. The midwives and students would very much like to be able to be more open and honest in their communication with the women, but the students feel that until their mentors have further education in this area, they will be unable to practise and gain confidence in communicating with this client group (which is discussed further under Mind the Gap).

Occasionally some students have felt sufficiently empowered by their academic education to attempt to communicate with the women more directly, and were prepared to discuss risk factors, dietary factors and health promotion, but found their communication was cut short by their mentors. The students' perception is that this occurs due to the midwives feeling uncomfortable, not confident and embarrassed to discuss the subject of obesity with the women. But this does not demonstrate effective mentoring. The midwives' perception of this situation could be that the students are on the verge of exceeding the boundaries of their capabilities, a similar view to that in Young's study (2012): that an over-confident student midwife can affect the delicate balance of the mentoring relationship, as outlined by Webb and Shakespeare (2008) regarding student nurses. In contrast, Finnerty and Collington (2013) argue that senior student midwives should be enabled to lead episodes of care. What is evidenced from the midwife participants in part 1 of the study is that

they lack confidence and can feel embarrassed in their communications with this client group. It is therefore understandable that they are reluctant for their students to open lines of communication with this group of women when they themselves do not feel competent or able to do so. Hughes and Fraser's (2011) study looked at student midwives' experiences of mentoring, and found that the mentors who were perceived as controlling or undermining their actions were considered less helpful and therefore did not enable the students to move forward in their practice, and could potentially hinder the development of their decision-making skills (Young, 2012). In this aspect of the mentoring relationship, some of the students would concur.

Despite this criticism of the midwives' perceived poor communication, the students were very loyal to their mentors in that they gave reasons why this may occur (not having the training, knowledge, enough time). This loyalty to their mentors supports Webb and Shakespeare's (2008) view that student nurses (and by extension, student midwives) have invested so much 'emotional labour' in this mentoring relationship that criticism undermines the value that they have placed on that relationship. As Sporek (2015) suggested, it could also be that the student midwives are practising kindness towards their mentors, which provides the foundation for a successful mentoring relationship.

Exposing students to midwives with communication difficulties can have a major adverse effect on their learning in practice (Hughes & Fraser, 2011). Mentors dissuading the students from expressing their knowledge is not going to lead to a productive and enjoyable placement for both student midwives and student nurses (Webb & Shakespeare, 2008); and though the student midwives are loyal to their mentors, there is a sense of dissatisfaction that they are not enabling them to take the lead role in an episode of care, thus restricting the student midwives' experiential development. This supports the view of Finnerty and Collington (2013). In these interactions with clients the midwives are taking the lead and the students are indirectly learning from observing these communication interactions, but this is not necessarily teaching them optimum communication skills (Armstrong, 2008). It is also not providing them with the best possible role modelling behaviour. Being in possession of good communication skills can enable student midwives to demonstrate genuine interest, care and respect, and enable this client group to make informed choices about their care (Butler, Fraser, & Murphy, 2008). By not possessing or developing good communication skills or observing them in action during the midwives' interactions with this group of women, the students are unable to ensure that the women are being given adequate information to assist them with

informed decision making and it does not place the women at the centre of their care. Although the student midwives have embraced a philosophy of providing woman-centred care similar to that in the study by Browne *et al*. (2014), by not being enabled to fully communicate with this client group they are not fulfilling this philosophy of care.

In essence, the participants want a mentor who sets a positive example for them; this is also supported by nursing students (Perry, 2009), therefore exemplifying what is good practice in nursing as well (Price & Price, 2009). Role modelling can provide a unique opportunity for learning in clinical practice for the student midwives (Armstrong, 2008), and can prove to be a powerful mechanism in moulding how all students then perform in the practice environment (Charters, 2000). Role modelling, however, is not just about skills development and competency; it can also aid the development of professionalism in nursing students (Felstead, 2013) and midwifery students. Parallels to midwifery students have therefore been identified amongst nursing students in their requirements for positive role models within the clinical environment. Role modelling, the student midwives believe, is integral to ensuring that their midwifery education is further developed in the practice setting, which is supported by Hughes and Fraser (2011).

As previously mentioned, not being truthful with clients can cause the students to feel they are not fulfilling the requirements of their upcoming role of qualified midwife and is essentially calling into question their professional identity. Therefore being provided with a good role model could exemplify how they should be communicating with the women. Similarly, having a good role model was also considered to be vital for medical students to help develop their professional attitudes and identity (Finn, Garner, & Sawdon, 2010), as opposed to a poor role model whose erroneous views caused dissonance with the medical students' views on professional identity (Phillips & Clarke, 2012).

In summary, the students believe that most midwives are not effectively communicating with this client group, and observe midwives actively not referring to the women's underlying obesity problem, nor engaging with them on weight management or personalised dietary advice. Conversely, the students argue that the midwives' role should encompass all of the above topics. Despite the midwives' apparent communication difficulties, the students do understand, and consider that the midwives require additional training and education on obesity care and how to communicate more effectively with this client group. However, they also believe that they themselves should be enabled by their mentors to develop their communication skills with this group of women and presently this is not happening. The students

consider that they are developing their mentors' poor communication behaviour, particularly when asked direct questions by the women about the cause of difficult care delivery. They are therefore seeking better role models to enable them to firstly develop their communication skills with this client group, but also to be provided with exemplary professional practice.

6.5 Super-Ordinate Theme: Normalising the Risk

The super-ordinate theme 'Normalising the Risk' represents the emergent themes found in table 6.5. As a metaphor it sums up the students' acceptance and willingness to be non-discriminatory and non-judgemental in dealing with women with raised BMIs: to treat all women the same regardless of the nature of what is a medicalised group of women defined as at risk, in the students' desire to promote normality.

Table 6.5: Super-ordinate theme: Normalising the risk

Emergent themes making up super-ordinate theme	How many participants mentioned theme	How many times theme was referred to by participants
Non-judgemental, aims not to discriminate, treats everyone the same	6	25
Medicalised and high risk	6	25
Promotes normality	6	12

6.5.1 Non-judgemental, aims not to discriminate, treats everyone the same

The students make very clear references to the fact that they endeavour not to judge this client group, and strive to see beyond the women's obesity and treat all women the same regardless of their size. The students are aware that the women can be judged in society because of their size; some of the students find this upsetting and therefore feel that it is the role of the midwife and student midwife to provide non-judgemental, woman-centred, individualised, supportive care.

Amy I treat them as, as I do everybody else.

Connie You need to tailor your care to individuals.

Faye I think caring for them is exactly the same as caring for anybody else really.

Lucy I don't care what size people are, you just deal with them the same, you know?

Sian I mean to me it doesn't matter what BMI they've got, I try and promote everyone equally the same myself.

Amy I find it quite upsetting sometimes that they do feel like that and I feel it's important as midwives, as student midwives to not judge them and give them the best support and advice that you can.

6.5.2 Medicalised and high risk

It appears that this group of women are considered a high risk group in Trusts' policies, and more specifically those with BMIs ≥35kg/m^2 whose fetal heart rates require continuous electronic monitoring during labour. The students feel this continuous monitoring could lead to more interventions. Being classified as a high risk group, the women are considered to be medicalised, particularly by the obstetricians, and are perceived differently than a woman who had another co-morbidity than obesity. The students believe that there can be a lack of a holistic approach with this client group, particularly from obstetricians, and that their care particularly during labour is risk determined. The staff that the students perceive as having medicalised this group of women are then surprised when these clearly identified high risk women then go on to achieve a normal delivery, as the perception of them is that they will require assisted deliveries. The students also perceive the obstetricians' interactions with this client group in labour to lack a humanised component: the focus is on the obesity and not on the individual.

Kate It was very medicalised and it wasn't so much holistic as looking after the woman and her baby because it was more what the machines were telling us and how we were controlling her with the machines. The way other staff sort of treated her. Not in a bad way didn't see the woman as a person. Seen the machines. Spoke about her not to her. Sort of like she was not valued as an individual. The doctors didn't sort of see her as midwives would as working with her, they sort of just worked for the end outcome which was just get the baby out and have mum and baby safe instead of building up that relationship.

Connie It's more about risk management our obesity policy rather than like information to give the women and things like that.

Faye Antenatal period where you're booking them, you're doing the risk assessment and the referrals and you know, we highlight that their BMI is on the higher side and it comes with additional risks and therefore we will refer them for shared care. So maybe by the time they've got through to labour ward they're actually used to being, you know, treated quite medically. I think they're viewed a bit differently to high risk women with different morbidities if you know what I mean?

Faye So it's like we're setting these women up to fail almost in our perception, but then they go on and surprise us.

6.5.3 Promotes normality

The students strive to promote normality to this group of women despite them being classified as high risk during labour and requiring continuous electronic monitoring of the FHR. This theme demonstrates part of the ethos of midwifery care, the promotion of normality, which the students are advocating. Aspects of normality identified are the encouragement of mobilisation, adopting different positions in labour, the use of aromatherapy oils, creating a conducive birth environment and, essentially, encouraging the women that a normal birth is possible for them despite their high risk label:

> Amy We do encourage normality. We encourage them to mobilise as much as they can, even when they're on the monitor, encourage them to mobilise and stay upright. We have the use of aromatherapy oils, we offer that to all women. So I definitely think the promotion of normality even with women with raised BMIs is essential.

> Connie She was willing to adopt the positions given that she was hooked up to the CTG machine. But even so I still try and do the normal things, try and promote normality.

> Faye I feel quite passionately about how medicalised midwifery has become and I know we can't go back from that now, you know, because of the clientele that we're looking after but I think our fundamentals of promoting normality and you know, keeping your lights low and creating a nice environment for her, they're like the foundations, the starting point of it. I'll still do that for everybody that I can.

> Sian I try to promote normality to everybody.

6.5.4 Normalising the Risk: Discussion

Whilst there is an understanding that this client group are high risk, there is a clear intention during intrapartum care to promote normality as much as possible: what may be termed 'normalising the risk'. The students' perception is that because of the nature of high risk identification, the women's care in labour can become highly medicalised with the requirement of delivery intervention. The students, having embraced the concept of an holistic approach to midwifery care (Grigg, 2015), are very keen to promote normality whenever possible, and find it particularly satisfying when women in this high risk group can and do achieve a normal delivery. This is also echoed by midwives in part 1 of the study. Yet, Deery and Wray (2009) believe that midwives have become accepting of the increasing medicalisation involved in caring for obese pregnant women, and Scamell (2011) also contends that midwives are now actively involved in the medicalisation of childbirth. The midwives in the study are very aware of the identified risk factors associated with caring for this group of women, and they endeavour to promote normality whenever possible

despite being aware of colleagues who do not think that it is achievable. This is supported by the students expressing the view that other healthcare professionals not directly caring for the women have preconceived notions that medical interventions will be required, and that these other individuals are subsequently surprised when the women achieve a normal birth.

This promotion of normality is endemic to both participatory groups in the study which was an unexpected finding for the researcher. Despite the women being identified as a high risk group, normality is not just promoted but facilitated. There is therefore delight expressed when a normal birth is enabled, particularly in what is considered to be in the student midwives' experiences a very medicalised intrapartum care environment for this group of women, and not as women-centred a care setting as they would wish. Although Swann and Davies (2012, p.7) believe that midwives have a 'mindset' that equates obesity to a reduced chance of normality, both groups of participants in this study appear to have readily embraced the concept of promoting normality with this group of women.

There is an assertion of professional identity within this high risk setting in the fact that this group of women are enabled by both the midwives and students to achieve as much normality as possible (Raynor *et al*., 2014). This supports a Swedish study by Berg and Dahlberg (2001), who discovered that midwives caring for women with high obstetric risk factors do strive to promote a natural process of helping high risk women to achieve as much normality as is possible, but struggle to achieve the balance between the medicalised and the normal perspectives of this process. The midwives in the Swedish study suggest that a good working relationship with their obstetric colleagues (mutual respect) aids them to balance medicalising requirements, and thus allows them to be true to their midwifery identity (Berg & Dahlberg, 2001). Downe (2006) suggests that this could be referred to as an 'authentic' partnership, where both the midwives and the obstetricians are respectful of each other's views to enable decision making about women in their care. The students in the study have yet to build these relationships with the obstetric team and therefore their perspective is that of an observer.

Their observations, however, suggest that some encounters between obstetricians and the women in their care can be deemed to be not as humanised as they would wish because, in the students' opinion, the obstetricians are obesity risk focused and in their interactions with the women they are not treating them as individuals or holistically. Their assertions support a study by Mapp and Hudson (2005) which explored women's experiences of obstetric emergencies, and found that obstetricians in these high risk and frightening situations focused on the

emergency and outcome at the expense of humanising interactions with the women. Like Davis-Floyd (2001, p.6), this study found that this is because some medical practitioners do not see a need to engage with the women individually in labour, because they view them as 'objects of medical treatment' and therefore do not view their encounters with women as requiring them to take responsibility for their mind or spirit (an example being to refer to a woman in the labour ward environment as 'C-Section in 112'). The women themselves feel mostly that their care is medicalised with the focus being on their high-risk status and on determining fetal wellbeing, rather than holistically on them and their infant (Furber & McGowan, 2011). Furthermore, this group of women want to be involved in their care and find it humiliating when they are not, a similar view to that espoused by Nyman *et al*. (2010). Essentially, the students want to ensure that they are providing woman-centred and holistic care.

This paradoxical view of the medical model and the midwifery model of care is what the students appear to be experiencing, though this is not adversely affecting the students' ability to promote normality. Conversely, midwives in an Australian study (Copeland, Dahlen, & Homer, 2014) suggest that normal birth outcomes can be affected by the polarised views of midwives and obstetricians on their professionally assigned models of care (medical *versus* holistic, humanistic). This is supported by an Irish study in which midwives felt thwarted in promoting normality because of working in a medicalised environment (Keating & Fleming, 2009), though Jarvie and Ramsay (2010) believe a multidisciplinary team approach will help improve outcomes for the women. Downe (2006) however, believes that to maximise the possibility of normal birth, options should be opened up to women (midwifery model of care), rather than closed down (medical model), and that a different philosophy of care should be adopted whereby birth should be understood from the perspective of what can go well rather than what can go wrong. A perspective that both the midwives and the students in this study appear to be embracing.

Berg and Dahlberg (2001, p.262) suggest that midwives caring for high risk women must work harder to help them to achieve as much normality (naturalness) as possible because of the potential for medical intervention, though being aware that the obstetricians have 'the final word as regards the care for women at high-risk'. This is evidenced in part 1 where the midwives state that it is hard work to care for this client group and the students can find it challenging.

The students believe that for this group of women the focus of their care commencing when they book their pregnancies is upon risk management and risk

assessments, and this continues throughout their pregnancies and labour care. The students therefore voice their belief that midwifery care has become medicalised with this client group, due to the identification of their high risk status antenatally. Like Browne *et al*. (2014), they concur that antenatally the midwives' attention is concentrated on their own agenda for determining women's risk status, rather than on the women themselves. The students do, however, acknowledge that midwives try to introduce aspects of normality during intrapartum care despite the requirements for continuous FHR monitoring for women with BMIs ≥35kg/m^2. The midwives acknowledge that it can be difficult to achieve normality within the constraints of Trust policies regarding this client group, but try to do their best (as do the students).

The students feel that because their Trust policies dictate that women with BMIs ≥35kg/m^2 require continuous FHR monitoring (CTG) during labour, this will also increase the likelihood of medical intervention, which is reiterated by the findings in part 1. Being defined as high risk does result in more surveillance and monitoring in labour, which can subsequently lead to medical intervention (Scamell & Alaszewski, 2012). Like Swann and Davies (2012), this study suggests offering women alternatives when continuous FHR monitoring is required, such as sitting on a chair or birthing ball, rather than the bed, and offering an alternative to the medical paradigm of care. The students endeavour to foster normality during intrapartum care by providing as conducive an environment as possible, encouraging the women who are deemed high risk to adopt different positions in labour, to mobilise, and to use aromatherapy oils. That the students feel confident in promoting normality within an obstetric led care labour ward environment, for this group of women, suggests that they have been enabled to do so by positive role model mentoring, thus implying that midwives are confident in this sphere of practice in promoting normality with this client group.

Another positive aspect to this super-ordinate theme is the employment of non-judgemental care by both groups in this study. This supports the findings of a study investigating obese pregnant women's understanding of the risks of being obese in pregnancy (Keely *et al*., 2011). However, the participants in this current study were only too aware of colleagues who were not so discriminatory in their language regarding clients with raised BMIs, though these individuals were not directly caring for the women.

Like Raynor *et al.* (2014) and Pairman (2006), both the midwives and the students attempt to see beyond the women's physical appearance (their obesity), and endeavour to provide individualised, holistic, woman-centred care, therefore

embracing the philosophy of midwifery practice in caring for this client group. They therefore exemplify the positive characteristics of being a midwife as espoused by Carolan (2013). By treating each woman as a unique person, both groups are enabling a caring element in their relationship with the women (Berg, 2005), which is what the women want; but they also want to be treated like everyone else, and to be 'seen behind the fat' and not identified by their size (Nyman *et al*., 2010, p.427). Murray (2013) argues that healthcare staff can let their personal prejudices interfere with their interactions with obese patients; however, both groups of participants strive not to do so, though they have expressed shock and have been stunned at the size of women with BMIs >50kg/m^2. Like Murray (2013), both the midwives and students believe initial feelings of shock at the unexpected size and appearance of some of the morbidly obese women can be overwhelming for carers.

The students demonstrate that they are aware that the women may have been stigmatised within society because of their size. They do not suggest that the women are being discriminated within maternity care, which Deery and Wray (2009) believe can happen, and they exhibit another component of supportive care for this group of women by feeling upset for what they may have experienced, therefore exhibiting a great level of compassion, care and empathy for this client group.

In summary, this super-ordinate theme of normalising the risk can be considered a very positive theme for student midwives on the point of qualification, in that they are embracing the concept of promoting normality and individualised, holistic, woman-centred, non-judgemental care. They are also displaying evident caring and compassion for this group of identified high-risk women in also considering their potential stigmatisation within society. They portray knowledge of the care that this group of women require due to their risk status, but they also question the medicalising effects that caring for this client group can have on the role of the midwife.

6.6 Super-Ordinate Theme: Mind the Gap

The super-ordinate theme of 'Mind the Gap' represents the emergent themes that are found in table 6.6. This metaphor encapsulates the identified training requirements for both midwives and students, and the recommendations to improve what they perceived as the theory–practice gap. The students specifically focus on communication training requirements. Suggestions are also made for service improvements in care provision for this client group, so that optimal care can be delivered.

Table 6.6: Super-ordinate theme: Mind the gap

Emergent themes making up super-ordinate theme	How many participants mentioned theme	How many times theme was referred to by participants
Suggestions for service Improvements	5	13
Suggestions for student midwives' further training in communication	4	7
Suggestions for further training for midwives in caring for women	3	6

6.6.1 Suggestions for service improvements

The students feel that midwives could become more involved with this client group in promoting a healthier lifestyle. Antenatally, they could engage more with the women. At present if women do engage with a referral to a dietitian/weight services, this involves a one-off appointment for the women, which they appear not to be positively engaging with. The women themselves have informed the students that they consider one-off referrals with dietitians a waste of time. The students would themselves like to have extra time with the women at antenatal appointments to focus on health promotion messages regarding diet and weight gain in pregnancy, and feel that this aspect of health promotion could become more midwifery focused, rather than referring women to dietitians. They make a good point in suggesting that women need to come to terms with being informed at the booking appointment of the risks associated with a raised BMI when pregnant, and therefore propose a subsequent appointment should be made to discuss dietary factors, weight gain and a healthier lifestyle.

They identify the postnatal period as being the most opportune time to access women with these health promotion messages so that they can avoid being medicalised in subsequent pregnancies. The students are aware, however, that postnatal services have been reduced in recent years and refer to it as the 'neglected' area of midwifery care delivery.

The students also question why the maternity services are not targeting this client group with health promotion services, particularly given that smoking cessation services as an example are readily available, when there is an obesity epidemic in maternity care:

> Sian I do think more extra support could be given antenatally. I do think maybe rather than a dietitian the midwife should have more input on it in community as well as trying to direct them to other services as well.

Connie In the antenatal period when they come for their booking appointment they just get referred to the weight management services and when I've spoken to women about that appointment they just said oh, it was one appointment, it was a bit of a waste of time really.

Sian She may wanna talk about it once she's got used to being pregnant or after the 20 week scan when she knows the baby's, you know, healthy, developing as it should be and then maybe tackle the issue. So I think it should be revisited at not each and every appointment but maybe, maybe alternate appointments.

Isabel To see somebody postnatally to try and advise them on how to cut down and try and get a little bit more exercise and as ever it's the neglected area of midwifery isn't it? It's the postnatal side is the neglected area. So unfortunately then they'll go on to have another baby and they'll go through the same.

Faye So I think it actually probably needs to be, it's a big epidemic than it is our smoking problem in midwifery now. So it needs more attention. Whereas the smokers we go to town with. They have smoking cessation every antenatal appointment, yeah.

6.6.2 Suggestions for student midwives' further training in communication

The students identify communication as the area that their University education could be improved upon in helping to care for this client group and when dealing with the sensitive topic of obesity. They want to appear confident in their body language and communication skills, and do not want to look awkward as some midwives do in communicating with women with raised BMIs. There is a suggestion that they would only be able to develop their confidence with these skills if the midwives were also practising in this way and had received training in this area. The students would like guidance and advice on phrases to use when women ask them directly if care delivery difficulties are because they are 'fat'. They do not want to feel uncomfortable and unprepared for these encounters, and want to know what is appropriate to say without causing offence or upsetting the women:

Amy Maybe language that we could use, especially like when I said when women say to me is it because I'm fat, is it because I'm big, maybe teaching students how to tackle that, how to communicate that because myself and I'm sure other students have had that said to them and you don't wanna answer it with yeah, yeah maybe it is. You don't want to give that answer so maybe education and language that we can use and communication, I think that would be very beneficial.

Isabel I think it's the communication and how we broach them without upsetting them. How to address it. Without making them feel awful.

6.6.3 Suggestions for further training for midwives in caring for women

The students state that the midwives require extra training in the area of being able to communicate more comfortably and effectively with this client group. They rationalise why the midwives may be having difficulties with communication: that the obesity epidemic is quite a recent occurrence in maternity care and they as students are actively being educated on care delivery for this client group, whereas the midwives are not. The students feel that their midwifery mentors qualified before the obesity problem became apparent and became a very real problem in maternity care. They suggest because women with raised BMIs now make up a high proportion of maternity care clientele, there should be put in place ongoing professional education for qualified midwives on how to communicate with this group of women more effectively.

The students' normally see the midwives role modelling positive behaviour in practice, but feel that in relation to effective communication with this client group, they are not observing this happening in the practice setting. This, they feel, is impacting on the development of their own communication skills as they are taught the theory at University, but are not having the experience of practising their skill or learning from these communication interactions with their mentors, whereas they have had experience of their mentors being effective communicators with other groups of women in maternity care settings:

> Connie Students, obviously, they pick up on what their midwives do. So again, it's going back to training the midwives properly 'cause the students get their skills and their way of practice from the midwives. So I think it needs to start with the midwives.

> Lucy 'Cause you think a lot of our women have got an increased BMI so perhaps that needs to be included in their kind of ongoing professional training which it isn't and I think it is the awkwardness of the midwives. So as much as we'd have training in University, we wouldn't learn that skill of how to actually deal with them.

> Sian It's fairly new in the world of midwifery and a lot of the community midwives have been qualified for a long time, maybe their annual updates don't incorporate obesity as much as what we receive in Uni. So I do think that has a major influence on it and sometimes as well it's hard to tackle the information.

6.6.4 Mind the Gap: Discussion

Mind the Gap encapsulates the feelings that the student midwives have regarding the further potential training and education required to help overcome the deficiencies both in their own and in the midwives' knowledge to help improve the

care that this client group receive. It also clearly identifies where the students feel improvements should be made in service delivery.

The student midwives in the study make suggestions for service improvements for this client group, but their primary focus for this differs from that of the midwives. The midwives gave suggestions for service improvements to enhance care for this client group, e.g. provision of a specialist midwife, a dedicated clinic, improved plans of care and more cohesion within the multidisciplinary team, whereas the students advise on other areas to improve service delivery specifically related to the role of the midwife with this group of women.

The students' main suggestions are for midwives to become more engaged antenatally in promoting healthier lifestyles with this client group. They feel there should be more health promotion opportunities for women to discuss weight gain and dietary factors, and to receive beneficial advice on improving their health from the midwives. The midwives in the study consider health promotion to be integral to their role and do attempt to advocate it antenatally. Their advice for this client group is wrapped up in the general dietary advice given to all women antenatally, whatever their BMI is, in line with Arrish, Yeatman, and Williamson (2013).

Some midwives advise women to attend Slimming World/Weight Watchers if they specifically express that they want to manage their weight in pregnancy, and will also refer women to dietitians. The students, on the other hand, feel that more of the midwives' time should be spent with this group of women, and suggest that the booking appointment's focus for them is really to come to terms with being informed that they have a raised BMI and of the risks associated with that to themselves and to their unborn child. They advocate that the women should be offered another individualised appointment with the midwife to discuss their weight, weight gain in pregnancy, dietary factors, exercise and how they can make lifestyle changes to improve their health. Whilst this is a pertinent recommendation, Johnson *et al*. (2013) suggest that providing advice and the amount of information that would be required on weight management to the women at the beginning of their pregnancy could be overwhelming for them and difficult to take on board.

The students believe that women would be more responsive to the midwives, rather than being referred in some circumstances to a one-off group session run by a dietitian. The women have reported to the students that they have not found this helpful, particularly when there has not been much interaction between the dietitian and the group (e.g. shown a DVD on what constitutes a healthy diet). This has reinforced the students' belief that this aspect of health promotion should be more midwifery focused, although NICE (2010) recommend that a referral to a dietitian

should be personalised. Conversely, the midwives suggest that rather than an 'opt in' referral to dietitians which few women engage with, there should be a system where all are referred and they can then choose to 'opt out'. Dietitians, however, in a study to explore how maternity services should be developed to address maternal obesity, felt that it was not clear what was expected of them, when a referral to them usually resulted in meeting women who were already half through their pregnancy: 'a magic wand, I don't have' (Heslehurst *et al*., 2011b, p.173). Health professionals also felt that with appropriate training midwives could give nutritional advice to this group of women (Heslehurst *et al*., 2013), thus reinforcing that the midwives' role should be expanded in this area of care.

In some respects the above discussion is quite telling in that it demonstrates that the midwives do not consider interacting, or perhaps do not want to interact, with this client group antenatally to the extent that is suggested by the students, who clearly feel greater interaction is the way forward. It is possible that with better education and training on how to have discussions with the women, the midwives may change their minds. The midwives would, however, contend that their antenatal clinic appointments are now very time pressured (Browne *et al*., 2014); and that though they may be desirous of further education and training, it would not be feasible due to time constraints to open up a dialogue with the women and, like Browne *et al*. (2014), talk about individualised weight management and dietary factors to the extent that would be required. This is supported by the findings of a systematic review on weight management during pregnancy, which found that women would require a lot of specialised information from healthcare professionals (Johnson *et al*., 2013).

NICE (2010) support the students' suggestions and recommend that at the earliest opportunity in their pregnancy, advice should be offered to the women on the benefits to them and their unborn children of a healthy diet and being physically active. Health professionals are also advised to ascertain if the women have any concerns about their diet and to take the opportunity to discuss their eating habits (NICE, 2010). The students truly believe that this should be part of the midwives' role, and feel that it is presently not happening because the midwives do not know how to do this as they have not had the education. This finding is supported by the Heslehurst *et al*. study (2011b) of healthcare professionals, and a study by Risica and Phipps (2006) found that women would prefer to receive advice and information from health professionals involved in their care rather than another source, therefore validating the students' assertions. This is further supported by a study by Patel *et al*. (2013), which found that 15 pregnant women who declined a referral to weight

management services by their midwife did so, not because they were upset because their midwife had raised the issue with them and referred them, but because of work commitments, inconvenient location/time, not feeling well and lack of motivation. The Patel *et al*. (2013) study suggests that this should reassure midwives that women do find it acceptable for midwives to have these discussions with them, and that they have an expectation that midwives should be knowledgeable about the important aspects of pregnancy information that they should be exposed to.

The students are very well aware that there is an obesity epidemic as outlined by Johnson (2009), and question why the maternity services and particularly midwives are not taking every opportunity to discuss health promotion information with this group of women. They do not understand why it is that though obesity in pregnancy is identified as being high risk to women, they are not offered the same type of assistance, guidance and support that pregnant smokers are. Some students have observed this latter group of women being offered smoking cessation advice (NICE, 2013b) at every antenatal appointment, and yet are observing midwives' marked reluctance to discuss and address weight management issues, dietary factors and physical exercise with women with raised BMIs. Smoking cessation has been recognised as a specific public health intervention for pregnant women since the early 1990s, and therefore midwives are well aware of the risks to the unborn infant, and educated to realise that pregnancy is a major motivator for women to quit smoking (Chapple, 2006). Guidance, however, on how to manage the care for this client group was only realised in 2010 (CMACE/RCOG, 2010; NICE, 2010).

One concern the students expressed about this group of women is that if they fail to lose weight before they become pregnant again, their subsequent pregnancy will be medicalised. This viewpoint is not without foundation as a study found that 60% of obese women who gained excessive weight in their first pregnancy gained excessive weight in their second also (Waring, Moore Simas, & Liao, 2013). A large Swedish study of 151 000 women discovered that women who increased their BMIs by three points, and thus gained weight, between their first and second pregnancies were at higher risk of pre-eclampsia, gestational hypertension, gestational diabetes, caesarean section and stillbirth (Villamor & Cnattingius, 2006). Devine, Bove, and Olson (2000) suggest that pre-pregnancy weight provides a clear indication of postpartum weight retention and unavoidable weight gain for those women who have a long history of weight gain due to lack of skills, knowledge and resources to help them manage their weight effectively.

The students, in agreement with the midwives, suggest that the best time for this client group to be given dietary weight related advice would be during the postnatal

period and the best placed health professionals to deliver this health promotion advice would be community midwives. The students, however, are mindful that maternity postnatal services have in recent years been reduced due to financial constraints, and provide a similar view to Wray and Bick (2012) and Marsh and Colbourne (2015). Even though they are making this suggestion they realise that this may not be achievable. NICE (2010) suggest that postnatal care should incorporate an offer of support and advice to women who are overweight or obese at the 6-8 week postnatal check. This would entail tailored advice on healthy eating, physical activity and safe weight loss after childbirth. However, few midwives have the opportunity to offer postnatal care up to 6 weeks (Hall & Lucas, 2015), and the majority of women if there are no complications are discharged from midwifery care after between 10 and 14 days (Bick, 2010); yet the statutory requirements for a midwife to deliver postnatal care state that it must be not less than 10 days, but that it can be extended longer as required (NMC, 2012). Whilst NICE (2014c) clearly define the postnatal period as 6 to 8 weeks, in times of financial austerity postnatal care is the area that takes the hardest hit and even today it is still referred to as the 'Cinderella service' of maternity care (Hall & Lucas, 2015, p.26).

Findings from a feasibility study utilising obese service users' views on designing a maternal obesity intervention indicate that the postnatal period is the ideal time to be offered a weight management intervention rather than antenatally (Khazaezedeh *et al*., 2011), and this is supported by a study of 1015 postnatal women (Avery *et al*., 2016). The women's reasoning was that during the antenatal period their focus was on the potential complications and worries they may face, and they would therefore not be able to focus on weight management (Khazaezadeh *et al*., 2011). This is supported by Williams (2012) who questions the success of weight management intervention for obese pregnant women because this is usually a time when their approach to gaining weight is at its most relaxed.

Another feasibility study discovered that the introduction of an antenatal weekly evening weight management intervention meeting, led by a midwife in conjunction with a Slimming Word representative, was acceptable to 126 obese pregnant women who attended on at least three occasions (Jewell *et al*., 2014). Realistically, being able to offer this intervention to all women with raised BMIs may not be possible due to the financial constraints present within the maternity services (Hall & Lucas, 2015). However, women in both studies indicated that group meetings were welcomed because of the social support they received from the group (Khazaezadeh *et al*., 2011; Jewell *et al*., 2014). Conversely, the students found a group meeting with a dietitian was not well received by the women that the students

have cared for. Their views are similar to Devine *et al*. (2000), who support this assertion that weight management should be individualised, but their focus was on the postpartum period. The students do suggest that a postnatal referral to a dietitian (involving more than one appointment) and other weight management services may be more beneficial to the women.

It is evident that the students do have some good suggestions to make on how services could be developed to improve the care that this client group receive, and how this could be embedded into the role of the midwife. Essentially, they would like midwives to be the practitioners who can offer guidance and support on diet, managing weight gain in pregnancy and physical exercise to women with raised BMIs. They do not view a one-off referral to a dietitian as beneficial to the women antenatally, and indeed dietitians themselves feel that not much can be achieved by meeting women half way through their pregnancies (which is when they engage with the referral). The students see the value of referring women to weight management services and a dietitian postnatally so that the women can be assisted in reducing their risk factors for subsequent pregnancies. The midwives' perspective on service improvements is that they do not have the knowledge, expertise or time to discuss this type of health promotion with this group of women, and therefore make recommendations for a specialist midwife and specialist clinic to be set up for them to refer this group of women to. Both groups of participants see the value of the community midwives' role in attempting to engage with the women about diet and exercise in the postnatal period. However, at present this would involve giving generic advice to all women because the students feel that all midwives require further education and training to care for this client group.

The students feel that their University education provides them with the theory of how to care for this client group, but it does not enable them to answer direct questions from the women regarding difficulties with care delivery, and most of the students would like to learn communication strategies on how to discuss weight management and how to broach the topic of obesity with the women. They would therefore like focused education within the University environment on how best to communicate with this client group, and to model their role on their mentors within the practice setting.

The students have observed their mentors communicating very well with other clients, but not with this group of women. There is therefore a clear perception by the students of a gap in the midwives' ability to communicate effectively. Whilst accepting that they themselves require further instruction in communicating with the women, there is a strong belief that the midwives would benefit enormously from

further advice, training and strategies in communicating with this client group. A finding by Smith, Cooke and Lavender (2012) suggests that midwives do not know the words to use in these encounters because they lack training in this area. Johnson *et al*. (2013) concur that specialist knowledge can be lacking, but argue that this group of women require more information on their weight, dietary factors and weight management than other client groups receiving maternity care. Foster and Hirst (2014) contend that midwives did not discuss weight management because of a lack of knowledge, but because they did not have the time to address these areas with the women. The suggestion that midwives do indeed require education and training on how to communicate effectively with women with raised BMIs is further supported by a recommendation from Keely *et al*. (2011), who discovered that of the eight obese pregnant participants that had taken part in the study, none were informed of the risks of obesity at their antenatal booking appointment. The students do not perceive this as an issue for the midwives that they have observed in practice, which therefore suggests that their mentors' knowledge is good on the risks of obesity for this client group, as supported by other studies (Nunes, 2009; Foster & Hirst, 2014). Lee (2014), however, believes that women who are identified as having high risk pregnancies have a different risk perception to the midwives caring for them, and suggests that midwives should receive ongoing training on their communication skills. This is in reference to the women being able to discuss their concerns and being at the centre of care, rather than the focus being a risk agenda where the power base lies with the midwife. As found in Nyman *et al*. (2010), some of the women in this study expressed dissatisfaction with their midwives' communication if it overly focused on risk discussion and their weight.

Like the midwives themselves, Arrish *et al*. (2013), Heslehurst *et al*. (2013) and Macleod *et al*. (2012) have identified the need for knowledge and training to increase midwives' confidence in communicating with this group of women. The students make suggestions that this type of training and education could be incorporated into the midwives' annual mandatory training to enable their professional development, though Heslehurst *et al*. (2013) believe that due to the competing demands of releasing staff for study leave and the requirements of topics that need to be covered in mandatory training, it would not be possible to overload these training days any further.

The students' perspective is that providing the midwives with education and training would enable the students to develop and build confidence in their communication with this client group. The students want their mentors to provide

them with positive role modelling experiences on how to effectively utilise communication strategies with this client group that the students have been educated about in the University environment. Like Longworth (2013), the students believe that this would reduce their theory–practice gap and enable effective learning for them in the clinical environment. The students are also aware, like Young (2012), that not being able to communicate well with this client group could hinder the women experiencing a positive childbirth experience. They are therefore conscious that being an effective communicator is a crucial requirement for them, being that they are on the point of qualification: this supports the views of Butler *et al*. (2008).

The students therefore want their mentors to receive training to become effective role models, not just in communication encounters, but also to exemplify professional practice. Alligood (2011, p.981) gives an example from a nursing study, where she believes that nurses who receive training on 'modelling and role-modelling', will subsequently improve their job satisfaction and patient care delivery. Loh and Nalliah (2010) argue that to determine what the requirements of an effective role model should be, students should follow the example of a study they conducted with medical students. The medical students were involved in a six month observational study, whereby they collected data on what they considered attributes of good role models amongst healthcare professionals. This, Loh and Nalliah (2010) state, will provide the medical students with the opportunity to reflect on how they can be effective role models in their own future practice: their own observations and experiences provide them with the knowledge of what is required to be an effective role model. This is supported by a study by McCloughen, O'Brien and Jackson (2013) to investigate the role of the mentoring relationship in encouraging students to become nurse leaders. The study found nurses consciously adopt positive behaviours from mentors who are supportive, empowering and nurturing towards them, thus providing influential role modelling. It is debatable whether the attributes of a good role model can be assigned during training in this area, but they can be improved upon by the midwifery mentors receiving education to improve their own communication interactions with this client group.

In summary, the students make some good suggestions for improvements to care delivery for this client group. However, many of these focus on an expansion of the midwives' role into giving individualised weight management advice to the women. Despite the students recommending that midwives are provided with education and training on communicating with this client group, there is acknowledgement, acceptance and understanding as to why the midwives may

have difficulty getting this. The midwives themselves have highlighted their requirements for training and education, and the students' findings in 'Mind the Gap' provide a persuasive argument that this is a necessity to improve the future practice of midwives, and to improve students' learning by enabling their mentors to become effective role models. It is the clear belief of the students, however, that no matter what their university training may entail, their practice skills are very much modelled on those of the midwives; and until they themselves are able to communicate more effectively, any lessons learned by the students will remain 'in theory' only.

6.7 Conclusion

The findings from part 2 of the study are original in that they establish what it means to student midwives on the point of qualification to care for women with raised BMIs, and they provide their unique perspective on the midwives' behaviour in caring for the women as well.

The students clearly have a different viewpoint to the midwives regarding caring for the women, and though they may say that it can be challenging caring for women with BMIs ≥35kg/m^2 in labour, they do not experience the same sinking feeling that the midwives express.

The students believe that their university education generally prepares them to care for this client group theoretically, though this could be enhanced by workshops detailing specific strategies on how best to communicate with the women because they are not experiencing this in the practice setting with their mentors. A negative aspect to communication encounters is that the students are affected personally by caring for this client group, in that they experience a sense of unease and disquiet because they feel they are not being honest with the women at all times. This causes discomfort regarding their professional identity, particularly as they are close to qualifying as a midwife and are aware this is not how they should be behaving. This lack of honest communication is not being initiated by the students, but is being advocated by the majority of their mentors, and inevitably therefore negative aspects of the mentor's role modelling behaviour are being practised by the students.

Though loyal to their mentors, the students feel that at present they are not being effectively mentored to develop their own communication skills with this client group, and are therefore not being enabled to link the theory of communication with how it is used within the practice environment. This perceived loyalty to their mentors is also demonstrated by the students feeling that they do not want to express their own knowledge acquisition in caring for this client group, for fear of embarrassing the midwives by highlighting their lack of knowledge. The researcher

contends that student midwives on the point of qualification should be leading these interactions with the women with minimal supervision from their mentors, rather than observing the often limited communication which transpires, and which at times makes the students feel frustrated and ill at ease.

The students, however, do value their practice experience in that it allows them the opportunity to fully appreciate the realities of caring for women with raised BMIs during the childbirth continuum, supported by their mentors. They clearly identify the training requirements that are needed for the midwives to be able to communicate confidently and more effectively with this group of women, and believe that by receiving additional education and increasing their knowledge of caring for and interacting with women with raised BMIs, the midwives will be enabled to become positive and confident role models.

Positive aspects of role modelling behaviour by the mentors, however, are expressed and demonstrated by the students being confident in promoting and facilitating normality to this pre-determined at risk client group. They are therefore asserting midwifery professional identity with this group of women during intrapartum care within a medicalised environment which views the women by their risk status, rather than on an individual and woman-centred basis as the students are striving to do.

Another positive attribute of the student midwives' behaviour is that though they are aware of negative judgements being passed regarding the women (not by individuals directly caring for the women), they strive not to judge. The students demonstrate compassion, caring and empathy towards the women. However, they have expressed shock at the size of some women with BMIs in the 50s kg/m^2 because this is outside their experience, and therefore feel that training and education are required to help them to be more prepared. They are very aware that the women may have experienced societal stigmatisation and they very much do not want to be viewed as contributing to this stigmatisation by any unchecked reactions.

A questioning approach has been adopted by students in that, given that there is an obesity epidemic, they query why the maternity services are not directing health promotion services for this group of women to help them improve their health in pregnancy. The students also very much believe that the role of the midwife should involve giving personalised advice to the women on dietary factors and weight management, rather than referring them to dietetic services (which the women have not positively responded to).

The size of the midwife and student midwife is felt to be implicated in care delivery to obese clients. The students want their mentors to be more confident and

less embarrassed in their antenatal communication with the women, particularly midwives who are of normal range BMIs. For those midwives with high BMIs, the students feel that the women are not going to be responsive to receiving weight management advice from them and believe that they would not be viewed as credible health promotion role models, though some suggest that ‘thin’ midwives giving dietary advice may also not receive a favourable response.

The findings within this chapter have clearly identified where improvements need to be made regarding both the student midwives’ education and that of qualified midwives to help improve the care that the women receive. The students clearly want to be enabled to become more effective midwifery practitioners in caring for this client group, both from a professional and educational perspective.

Chapter 7: Conclusion and Recommendations

7.1 Introduction to the Chapter

This chapter details the study's unique contribution to knowledge, its strengths and limitations, and its conclusions. Recommendations are presented for midwifery practice, midwifery education both pre- and post-registration, for raising awareness of maternal obesity risks and for future midwifery research.

7.2 Unique Contribution to Knowledge

The study provides specific contributions to knowledge in a number of areas. In general terms, this is the first study that has explored what it means to midwives and midwifery students to care for women with BMIs ≥30kg/m^2 during antenatal, intrapartum and postnatal care. No UK studies have been conducted that have examined the meaning of all aspects (settings) of these encounters between midwives and the women, and no UK and international studies have been performed from the student midwives' perspectives.

The unique findings include all the original student midwives' findings (detailed in chapter 6) and the following notable observations: The findings from this study suggest that not only have this client group substantially increased in numbers and appear to represent a large proportion of the women in maternity care, but they are also perceived as getting bigger in size. The fact that women are becoming larger has an impact on both the midwives and the students, who feel visually unprepared when they encounter women with very high BMIs in the 50s kg/m^2 and are concerned that their unchecked reactions could unintentionally contribute to stigmatising the women. Of note in this study is the finding that midwives and students view women with BMIs in the low 30s kg/m^2 to be of normal weight range and do not view them as being obese, therefore they are perceived as following societal trends of normalising obesity within a healthcare setting.

This study has identified excessive amount of stress, worry and anxiety that can result for midwives in caring for this client group. The time, particularly during intrapartum care, that midwives and students take to ensure that they can monitor the FHR continuously for women with BMIs ≥35kg/m^2 can be extensive. This takes them away from other requirements of caring for a woman in labour and it is particularly hard work for a midwife to care for women within this BMI category by herself during labour.

Midwives in this study felt that midwifery colleagues with high BMIs themselves could potentially have difficulty in being able to deliver care due to their size,

because of the increased physical exertion inevitably experienced. This is of particular significance as caring for women with raised BMIs during intrapartum care is considered very hard and physically demanding, and at times is a struggle for midwives working without a student.

The students generally feel better prepared to care for this client group, but the midwives do not. The students believe that their University education and practice learning experiences help prepare them; however, in order to become fully competent and confident midwifery practitioners, they suggest the introduction of specific workshops on communication with this group of women should be organised in the University setting. Ideally, they would like their mentors to be role models confidently communicating with the women, but until the midwives themselves receive training on how to do this they would like further theoretical input. The need for improved communication is most noticeable when women ask directly if care delivery is problematic because of their size. Both groups of participants reply in the negative, but this causes consternation and unease in that they are not being truthful with the women, which has implications when their whole ethos is to establish a rapport and a trusting relationship with them. From the midwives' perspective it also affects their professional identity, in that they are not providing positive role modelling for the students to enable effective learning on how to communicate with this client group. However, professional identity is fully endorsed by the midwives in the study in their promotion of normality to this assigned high risk group of women, and this represents positive aspects of role modelling behaviour to the students by the midwife in a medicalised environment.

The students confirm other studies' findings (discussed in chapter 6) that midwives avoid discussing obesity with the women, and further suggest that they actively avoid engaging on this topic because of its stigmatising persona.

The students believe that the ability to communicate with this group of women on weight management, dietary factors and health promotion should be encompassed within the midwives' role, and they wish for confident and competent mentors to be educated and trained to do so. Some of the students have felt sufficiently empowered by their University education to endeavour to engage the women on the subject matter of diet and weight management, but are prevented from doing so by what they perceive to be their mentors' lack of knowledge, training and confidence in being able to conduct these interactions. This has implications for mentoring students in caring for this client group, with reference to the impact that the lack of knowledge that the midwives exhibit subsequently has on the students and their own ability to develop their communication skills with this group of women.

The students make recommendations for improving the care that the women receive antenatally by suggesting offering them another antenatal appointment once they have absorbed being identified as being in an at risk group, so that effective communication can then take place on weight management and lifestyle choices on an individual basis.

Resource implications have been acknowledged by other studies, but what is identified and elaborated on in this study is the time that is spent on simply trying to conduct routine care. Additional equipment has to be sourced and extra personnel required for manual handling situations to ensure safety of the women and for the personal safety of staff. Of consequence is the impact on hospital antenatal clinics of more referrals to obstetricians, more requirements for screening tests for GTT, and increasing demands on the ultrasound scanning departments, due to the fact that midwives are unable to determine fetal position and size of the fetus. This provides a worrying picture with regard to cost implications to the NHS.

Positive original findings discovered in the study are the level of care, the compassion and the empathy that is displayed by both the midwives and the students in caring for the women, despite the inevitable difficulties that midwives can face caring for this client group in labour by themselves. They endeavour to see beyond the women's obesity to see them as individuals.

7.3 Strengths of the Study

The study contends that it has robustness which can be readily acknowledged and identified. The study is original in that it has explored the meaning of caring for women with raised BMIs during the childbirth continuum from the viewpoints of both midwives and student midwives on the point of qualification, which has created a unique perspective of caring.

The use and application of the Interpretative Phenomenological Analysis research methodology allowed the generation of rich data and for unique perspectives to be elucidated. It provided a robust yet flexible theoretical approach that allowed for a common narrative to be found within each participatory group, and insightful interpretations and generation of meaning from both perspectives. To the researcher's knowledge IPA has had limited application to midwifery research, and the researcher believes that this is the first midwifery PhD conducted utilising this research methodology.

The study was conducted with rigorous intent and ethical research processes were followed. To ensure there was no bias the midwifery participants were recruited from four hospital Trusts in the North of England which had no links with

the researcher. The midwifery participants represented all aspects and settings of care delivery for this client group and were very open and honest in describing what it meant to them to care for this client group. Trustworthiness of the data findings was assisted by an academic, external to the study, randomly selecting and analysing seven of the study's transcripts, and by the researcher's supervisors confirming findings by selecting a sample of the transcripts and subsequent analysis to peruse.

The study has the potential to make positive changes to midwifery practice by highlighting the overwhelming difficulties that midwives can face when caring for this client group. Recommendations for post-registration midwifery education will improve the care that the women receive whilst also reducing the midwives' level of stress, worry and anxiety in caring for them. The findings of the study from the midwives' perspectives encouraged and supported the development of a bespoke validated level 7 module 'Managing obesity during the childbirth continuum', as part of a MSc Maternal and Women's Reproductive Health programme. The potential also exists to improve student midwives' experiences of communicating with and caring for this client group by making specific recommendations for pre-registration midwifery education.

7.4 Limitations of the Study

There were some limitations to the study:

The midwifery participants self-selected to take part in the study following exposure to posters advertising the study in the clinical area and after requesting written information, and could therefore be considered a group motivated to participate.

The student midwife participants attended the University where the researcher is employed. However, to reduce bias the researcher ensured that she had not taught this group of participants about maternal obesity care within the midwifery programme, and was not their personal academic tutor.

No male midwives were represented in the data because at the time of recruitment none were employed by the participating Trusts.

This was a qualitative study, therefore the findings cannot be generalised. However, the sixteen midwives and eight student midwives who participated did provide a rich seam of data that enabled the researcher to realise a meaningful interpretation of the findings within both midwifery practice and educational contexts.

7.5 Conclusions to the Study

The aim of the study was to determine what it means to midwives and student midwives on the point of qualification to care for women with a BMI ≥30kg/m^2 during the childbirth continuum. The objectives were to provide a voice to midwives' and student midwives' experiences of caring for this group of women by collecting information from the perspectives of the participants, rather than that of the researcher; and to disseminate the findings and to make possible recommendations for future midwifery training, practice and research. The researcher believes that the study's aim and objectives have been clearly achieved.

The realities of caring for women with BMIs ≥30kg/m^2 demonstrate the overwhelming difficulties that both groups of participants can face in clinical practice in aiming to perform routine care delivery and access appropriate resources, and identify the complex communication encounters that can occur.

Caring for this client group can affect the midwives' and students' sense of professional identity if truthful and honest communication exchanges with the women are avoided. Subsequently this can cause a high level of unease, which can in turn affect the midwives' job satisfaction and potentially exacerbate their levels of workplace stress.

The stigmatising effects of obesity were not realised in negative connotations as is sometimes depicted within society generally. The caring element inherent to the midwives' role was clearly expressed by both groups of participants in their displays of care, compassion and empathy. Whilst there were clear intentions from the participants to strive to ensure non-judgemental, women-centred, individualised care, there was also an evident awareness of the marginalisation that can occur for this group of women.

Despite the women being identified as a high risk group and being challenging in the provision of routine care in the intrapartum setting, the participants not only promoted normality, but facilitated it for the women and expressed delight for them when a normal birth was achieved. This captured positive aspects of the midwives' role modelling, with the students exhibiting their desire to promote the midwifery model of care in a defined medicalised environment, and supported the midwives' professional identity within this arena.

The size of the midwives themselves does impact on their communication with this client group. Midwives with raised BMIs tend to feel that they are able to build a rapport with the women due to empathy and their own personal experiences of increased weight. Conversely, midwives with normal range BMIs feel as if they could be considered to be lecturing the women if they try to advise on diet, weight

management and health promotion, and can therefore feel embarrassed and awkward in such encounters. Colleagues and students of those midwives who have raised BMIs themselves do not consider that they are credible role models in health promotion.

There is a suggestion from midwives with normal range BMIs that colleagues with raised BMIs may struggle physically with the increased demands of the role of a midwife. This is of increasing concern as the perception of the participants from the study is that not only do this client group represent around 50% of the women in their care, but that the women are becoming larger and that caring for those with BMIs ≥35kg/m^2 during labour is physically demanding. Healthcare staff are, however, mirroring societal rates of obesity and in some circumstances exceeding them. There is cause for concern in terms of the physical wellbeing of the midwives with raised BMIs, and the psychological wellbeing of all midwives in caring for this group of women.

There is no doubt that communication with this group of women can be fraught with difficulties and that sensitive communication is required so as not to upset the women or cause them to feel stigmatised. This situation is exacerbated, however, by the fact that some of the women that the midwives and students have cared for have been completely unaware of the associated risks, to themselves and their fetus/baby, of becoming pregnant with BMIs ≥30kg/m^2 until the antenatal booking appointment. If they had been aware, then a much easier rapport could be engendered with all midwives, and there could be more of a focus on positive aspects of the childbirth continuum and more concentration on health promotion messages rather than on risk identification. More open communication could be achieved and fewer unpredictable responses from the women could be expressed.

The midwives themselves express a desire to be better informed and educated on how to communicate with the women, and the students offer suggestions on educational and training requirements for both midwives and themselves to ensure that improvements can be made to the delivery of care to this client group. In particular, the study presents the student midwives' unique perspectives with regards to their practice learning experiences and University education, and provides an illuminating picture of qualified midwives' practice from their viewpoint.

The use of Interpretative Phenomenological Analysis for the theoretical underpinning and research methodological application has been instrumental in determining the essence of what it means to midwives and student midwives to care for women with BMIs ≥30kg/m^2 during the childbirth continuum, and provides an enlightening snapshot of midwifery practice and midwifery students' education and

practice learning in this sphere of care. This study therefore provides original findings from the perspectives of the midwives and student midwives in caring for this client group.

7.6 Recommendations

7.6.1 Recommendations for pre-registration midwifery training

- To introduce visual perception training to the pre-registration midwifery programme on BMI measurements and size acuity. This would help reduce shock for first time encounters with women with BMIs >50kg/m^2, and aim to ensure that BMI borderline obesity measurements tally with the students' visual discernments, thus promoting awareness that despite a normalisation of obesity in society, it does have implications for maternity care delivery e.g. the risks to the mother and fetus. The provision of perception and visualisation training will involve pictorial representations of different BMI measurements, therefore preparing the students visually for what different BMIs and body types represent. Since data analysis revealed these findings, the researcher has integrated pictorial representations of different measurements of obesity into lessons on obesity and health promotion. Non-verbal cues for interacting with this client group are also required to allow the students (and midwives) to cope with feeling overwhelmed by women's appearance and size e.g. for them to be made aware to engage with facial expressions (smiling) and not to focus on the women's bodies at that initial encounter.
- A particular area to be considered for midwifery students' preparation for caring for this client group is the possibility of simulation training with an obese manekin. This will help identify the potential practical problems that the students may encounter in the practice setting and allow for difficult communication encounters to be experienced in the University environment. Scenario-based active learning workshops on communication strategies could also be provided that realistically represent encounters with this client group, e.g. informing women of their BMI measurement, the risk implications and how to respond truthfully to direct questions related to the women's size. Therefore a maternal pregnant obese simulation model and the use of clinical scenarios (Kneebone et al., 2005) involving problematic clinical assessments of maternal and fetal wellbeing, facilitating a normal birth, perineal assessment and repair, and appropriate manual handling techniques could potentially be useful in preparing students for practice. The

students' communication skills could also be improved upon particularly if the 'model' were to ask the student questions which they face in practice, a prime example being whilst the student is having difficulty trying to listen to the FHR – 'Is it because I'm fat?' is an often repeated question from clients.

7.6.2 Recommendations for post-registration midwifery training

- Midwives to access training and education on caring for women with BMIs ≥30kg/m^2 during antenatal, intrapartum and postnatal care, with a specific emphasis on communication strategies and recognition of the requirements to provide non-judgemental care to this potentially stigmatised group of women. Educational workshops on how to discuss nutritional factors, physical activity, weight management and communication strategies could all be achieved if midwives attended module MW 7024 Managing Obesity During the Childbirth Continuum. This original module, developed solely on the basis and context of this PhD study, will provide them with knowledge on the pathophysiology and causes of obesity, the psychological issues relevant to this identified stigmatised group, and midwifery management in all aspects of care. It also provides scenario-based learning workshops on communication strategies for encounters with this client group.

7.6.3 Recommendations for midwifery practice

- To inform women during antenatal care of the potential difficulties they may encounter in care delivery e.g. the midwife trying to listen to the fetal heart rate. This would prepare the women for what might ensue, and thereby reduce the probability of them asking the midwives if it is because of their size that the midwives are experiencing difficulties. This would effectively reduce awkward and complex communications that can evolve for both the midwives and student midwives during these encounters.
- To be an accepted procedure that a midwife requires the assistance of another person (e.g. midwifery support worker) to assist them in caring for women with high BMIs during intrapartum care.
- Midwives to conduct a 6-8 week postnatal check with the women to discuss dietary education, weight loss and physical activity, to help reduce their weight and therefore reduce risk factors for subsequent pregnancies.

7.6.4 Recommendations for raising public awareness

- A public health campaign to raise awareness in the potential childbearing population, as this study has unequivocally shown that many women are unaware of the associated risks of becoming pregnant with a raised BMI.
- To recommend that strategies are urgently developed to help obese women to optimise their weight before they become pregnant.

7.6.5 Recommendations for research

- To conduct research from the women's perspectives, particularly on communication strategies to help improve encounters between them and the midwives.
- To explore the relationship between student midwives in their final year of training and their mentors, particularly in allowing students to lead episodes of care with this client group in comparison to other identified high risk groups of women in maternity care.

7.7 Closing Remarks

This has proved to be an interesting study from both personal and professional perspectives. It is hoped that the findings from this study will have some impact on midwifery practice by its dissemination at the *Maternity, Midwifery and Baby Conference* (22nd September, 2015, Manchester), the 31st International Confederation of Midwives Triennial Congress, which is being held in Toronto, Canada, June 18–22, 2017, and by the acceptance for publication of articles based on it in the journal *Midwifery*, an international publication.

Throughout the thesis I have focused my attention on realising an interpretation of what meaning is derived for both the midwives and the student midwives when caring for women with BMIs ≥30kg/m^2 during antenatal, intrapartum and postnatal care, and therefore have answered the study's research question. It has been an inspiring, motivating and challenging experience. I have increased my knowledge and understanding on the issues of delivering care to this client group, on educational aspects, and on training requirements that could be instigated to assist midwives and student midwives.

Personally I have gained great satisfaction in conducting this study and from the process of the completion of this thesis. It has provided me with professional credibility with which to pursue further research in this area. In conclusion I contend that this study has contributed knowledge and insight into what it means to midwives and student midwives to care for women with BMIs ≥30kg/m^2 during the childbirth

continuum, which can be used to inform future midwifery practice, education and research development.

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Appendix 1: Results of Database Searches

Appendix 1 Table 2.6: Literature Search Tracking Sheet 2003-2013

Database	Years searched	Search terms	Hits
CINAHL	2003-2013	Midwives AND student midwives OR obesity maternity care	0
CINAHL	2003-2013	Midwives AND obesity maternity care	1 (1 care)
CINAHL	2003-2013	Midwives AND healthcare professionals OR obesity maternity care	81 (1 care, 2 weight intervention)
CINAHL	2003-2013	Midwives AND women OR obesity maternity care	1 (1 weight intervention)
CINAHL	2003-2013	Women AND obesity maternity care	8 (4 weight intervention)
CINAHL	2003-2013	Healthcare professionals AND obesity care	7 (2 care)
CINAHL	2003-2013	Patients AND obesity care	252 (11 care)
Cochrane Database	2003-2013	Midwives AND student midwives OR obesity maternity care	0
Cochrane Database	2003-2013	Midwives AND obesity maternity care	6 (0 care)
Cochrane Database	2003-2013	Midwives AND healthcare professionals OR obesity maternity care	0
Cochrane Database	2003-2013	Midwives AND women OR obesity maternity care	0
Cochrane Database	2003-2013	Women AND obesity maternity care	0
Cochrane Database	2003-2013	Healthcare professionals AND obesity care	1 (1 weight intervention)
Cochrane Database	2003-2013	Patients AND obesity care	10 (0 care)
Proquest	2003-2013	Midwives AND student midwives OR obesity maternity care	0
Proquest	2003-2013	Midwives AND obesity maternity care	999 (1 care)
Proquest	2003-2013	Midwives AND healthcare professionals OR obesity maternity care	472 (4 care)
Proquest	2003-2013	Midwives AND women OR obesity maternity care	300 (6 care)
Proquest	2003-2013	Women AND obesity maternity care	40, 204 (4 care, 8 weight intervention)
Proquest	2003-2013	Healthcare professionals AND obesity care	11, 431 (7 care, 6 weight intervention)
Proquest	2003-2013	Patients AND obesity care	82, 501 (9 care, 27 weight intervention)

Database	Years searched	Search terms	Hits
Pubmed	2003-2013	Midwives AND student midwives OR obesity maternity care	0
Pubmed	2003-2013	Midwives AND obesity maternity care	89 (1 care)
Pubmed	2003-2013	Midwives AND healthcare professionals OR obesity maternity care	18 (4 care, 7 weight intervention)
Pubmed	2003-2013	Midwives AND women OR obesity maternity care	23 (1 care, 7 weight intervention)
Pubmed	2003-2013	Women AND obesity maternity care	2, 540 (1 care, 12 weight intervention)
Pubmed	2003-2013	Healthcare professionals AND obesity care	1, 086 (5 care, 7 weight intervention)
Pubmed	2003-2013	Patients AND obesity care	5, 746 (1 care)

Notes:

Searching the literature was a very time consuming process. The searches needed to be modified to ensure that care was the focus of them, as it became apparent from the initial searches that a vast number of studies were providing hits to the search terms. The problems identified were that, for example, searching Pubmed for ‘patients and obesity care’ resulted in hits for patients, with only the first few pages on the database being related to the specific search terms; subsequent results were for patients in general. Therefore the aid of the subject librarian for midwifery (who previously assisted in the first search in 2010) was again called upon, and this resulted in 141 papers to peruse; however, upon closer inspection the majority of them were on the management of obesity rather than on the delivery of care, experiences of care or the meaning of providing care. This therefore resulted in further filtering, by which 22 papers were chosen for the narrative review (appendix 3). Weight management intervention papers were included because they contained aspects of care encounters.

Appendix 2: Critiquing Framework for a Qualitative Research Paper

(*Source*: Steen & Roberts, 2011, pp. 56-57)

The study	Questions
Publication	• Do you think the journal that the study has been published in reaches its target audience? • Is it midwifery specific? • Is the study in date, i.e. from the completion of the study to publication, no longer than 3 years?
Title	• Is it clear, succinct and understandable?
Abstract	• Is it a concise overview of the study? • Does it address the research question, outline the methodology, describe the sample, depict the findings and state any limitations? • Does it capture the reader's attention and make you want to read the rest of the publication? • The length of the abstract is determined by the journal in which it is published, usually 100-150 words; does it meet this requirement?
Author/s	• Who are the authors? • Are their qualifications, past publications or current posts detailed in the article to give them the credentials to conduct this research?
Funding	• How has the study been funded? • Could this be interpreted as biasing the study, depending on where it is from?
Introduction	• Does it give a clear rationale of why the research study was conducted? • Is the research question or aim clearly stated? • Does it identify why the research question needed to be answered? • Does it provide a contextual focus (background) for the research?
Literature review	• Is it in date? (This usually refers to a five year window; however pivotal studies in the topic area are acceptable.) • Has the most recent research evidence been examined to provide a balanced argument to either support or challenge the proposed research? • Has the review identified a gap in knowledge, i.e. that no research has been conducted on this topic in this way? This gives a very strong rationale for the study to be carried out. • Has the review identified dated research that could be duplicated? • Has the review clearly identified the need for this study? • Has any research been omitted from the literature review discussion? (When conducting a research critique, you should perform your own literature search to reach this conclusion.) • Does the review make sense?
Methodology	• Does it state which research paradigm has been

The study	Questions
	followed? • Does it identify which research approach has been utilised – in this instance it should be the qualitative approach? • If the above are not mentioned do you think the authors have made assumptions about their readers that they should know? Is it an assumption or omission on their part? • Does it evidently describe the research methodology they are using e.g. phenomenology? • Are the description of and why the research methodology is utilised understandable to you? • Have the authors clearly rationalised their use of it as opposed to others?
Sample	• Is the type of sampling clearly stated? • Does it match the research methodology that has been chosen (e.g. phenomenology and purposive sampling)? • Is the sample size stated, do you consider this is an appropriate number? • Is the sample size justified? • Are inclusion/exclusion criteria explained and therefore do you understand why this sample was chosen? • Is there an explanation of how the sample was recruited?
Method/data collection	• Which method of data collection was utilised? • Is it clearly explained? • Does it match the research methodology? (Different methodologies utilise different data collection methods.) • Was the most appropriate method chosen? • Is the concept of saturation referred to (i.e. when no new information is forthcoming, data collection ceases)? • Is the notion of reflexivity expressed by the authors?
Data management	• Are the procedures for managing the collected data described? • Have computer software packages been used for this purpose?
Data analysis	• Is the data analysis method clearly explained? • Does it match the research methodology? (Different methodologies utilise different data analysis frameworks.) • Are the concepts of trustworthiness evident in this process? Has the researcher practised reflexivity (referred to as putting aside personal biases)?
Ethical considerations	• Does it state that ethical approval (IRAS) has been gained? • Does it state that informed consent was gained from the participants? • Is participant confidentiality maintained? • Does it explain how the collected data will be stored and destroyed after the completion of the study? • Is the research process transparent, open to scrutiny? Have the researchers referred to an audit trail that could be followed by other researchers to establish the credibility of this research?

The study	Questions
Findings	• What are the findings? • Do they address or answer the research question? • Are the findings credible? • How are the findings displayed, are there too little or too many quotes from the participants? • Do the findings make sense?
Discussion	• Does the discussion highlight the findings and link them to other studies on the same topic area? • Does the discussion stress the significance of the study's findings and make recommendations for practice? • Are any limitations referred to? • Do you consider there were limitations to this study? • Do you consider that the authors have overstressed the significance of their study?
Conclusion	• Does the conclusion neatly round up the research study, summing up the results of the study and the discussion?

Appendix 3: Table 2.7 Studies Included in Narrative Review

Paper	Aim	Sample and Setting	Design	Findings/Results
How effectively do midwives manage the care of obese pregnant women? A cross-sectional survey of Australian midwives (Biro *et al.*, 2013).	To examine midwifery clinical practice for obese pregnant women. **Antenatal care**	Convenience sample. Email invitation to 4850 members of the Australian College of **Midwives**. 335 responded but not all completed the questionnaire. **Australia.**	Quantitative study Cross-sectional survey Data collection: Online questionnaire 39 questions. 3 sets of scaled questions, using a 3 point or 5 point Likert scale and 3 sections where participants were invited to make open-ended comments. Questions focused on antenatal care. Pilot study conducted. Data analysis: Descriptive statistics using Stata version 10.	7% response rate. 1. Highlighted considerable variations in practice in providing care and management of obese pregnant women. 2. Deficits were highlighted in midwives' knowledge, education, counselling skills and training requirements to provide care for this group of women. 3. Midwives who utilised the obesity care guideline – positive effect on their practice in enabling them to make evidenced-based care decisions.
'Not waving but drowning': A study of the experiences and concerns of midwives and other health professionals caring for obese childbearing midwives (Schmied *et al*., 2011).	To explore the concerns and experiences of health professionals when caring for obese childbearing women. **Antenatal, labour & postnatal care**	Sample type not stated. 37 **healthcare professionals** (1 anaesthetist, 34 midwives, 2 obstetricians,). Three maternity units in New South Wales. **Australia.**	Qualitative study Data collection: 34 midwives participated in 4 focus groups. One-to-one semi-structured interviews were used for 2 obstetricians, and 1 anaesthetist. Data analysis: Thematic data analysis.	Three themes: 1. Creeping normality. 2. Feeling in the dark. 3. The runaway train.
Obesity in pregnancy: A study of the impact of maternal obesity on NHS maternity services (Heslehurst *et al.*, 2007b).	To gain a detailed understanding of healthcare professionals' perceptions of the impact that caring for obese pregnant women has on maternity services. **Antenatal, labour & postnatal care**	Purposive sample. 33 **healthcare professionals** (1 dietitian, 26 midwives, 6 obstetricians, 1 physiotherapist and 1 diabetic nurse). 16 NHS Trusts. **North East of England.**	Qualitative study Data collection: Semi-structured interviews. Data analysis: Thematic data analysis.	Five themes: 1. Booking appointments. 2. Equipment. 3. Care requirements. 4. Complications and restrictions. 5. Current and future management of care.
How can maternity services be developed to effectively address maternal obesity? A qualitative study	To identify developments in maternal obesity services and healthcare practitioners' views on how maternity services	Purposive sample. 30 **healthcare professionals** (2 dietitians, 11 midwives, 13 obstetricians, 2 ultrasonographers)	Qualitative study Interpretive constructionist approach. Data collection: Semi-structured interviews (6 midwives) and 4 focus groups (24	Three themes: 1. Questioning maternal obesity service development. 2. Psychosocial considerations in maternal obesity service

Paper	Aim	Sample and Setting	Design	Findings/Results
(Heslehurst *et al*., 2011b).	need to be further developed to be more effective in the care of obese pregnant women. **Antenatal, labour & postnatal care**	10 maternity units. **North East of England.**	participants). Data analysis: Thematic data analysis.	development. 3. The way forward.
Maternal overweight and obesity: A survey of clinicians' characteristics and attitudes and their responses to their pregnant clients (Wilkinson *et al.*, 2013).	To assess staff knowledge about, adherence to and characteristics that influence delivery of care according to management of pregnancy related obesity clinical guideline. **Antenatal care**	Sample type not stated 73 **healthcare professionals** (3 dietitians, 35 midwives, 20 obstetricians, 10 physiotherapists) completed the survey. Tertiary maternity hospital. **Australia**.	Quantitative study Cross-sectional survey Data collection: Online questionnaire Data analysis: Descriptive statistics.	59.6% response rate. 1. Low awareness of BMI cut-off points and gestational weight gain (GWG) advice (apart from dietitians). 2. Higher staff BMI related to willingness to engage in GWG discussions. 3. Requirement acknowledged for staff training re- gaps in knowledge.
Papers: Obesity care outside of maternity care				
Obesity: Attitudes of undergraduate student nurses and registered nurses (Poon & Tarrant, 2009).	To investigate undergraduate student nurses' and registered nurses' attitudes towards obese persons and towards the management of obese patients.	Convenience sample. 352 undergraduate **student nurses** and 198 **registered nurses** (studying a post-registration course) recruited from a nursing school in Hong Kong. **Hong Kong, China.**	Quantitative study. Cross-sectional survey. Data collection: Self-administered questionnaire Data analysis: Descriptive statistics.	1. Registered nurses had significantly higher levels of fat phobia and more negative attitudes than did student nurses. 2. The majority of participants perceived that obese people liked food, overate and were shapeless, slow and unattractive. 3. Over one half of participants believed that obese adults should be put on a diet while in hospital.
Struggling to care: Nurses' perceptions of caring for obese patients in an Australian bariatric ward (Jeffrey & Kitto, 2006).	To explore nurses' perceptions and experiences of caring for obese patients in the context of an acute general surgical ward specialising in bariatric surgery.	Purposive sample. 10 **registered nurses** working on a bariatric unit. **Australia**.	Qualitative study. Data collection: Semi-structured interviews. Data analysis: Thematic analysis	Three themes: 1. Competing perceptions of obesity. 2. Ambivalence to weight loss surgery. 3. Obese patient responsibility.
Nurses' attitudes	The aims of the review	11 papers both qualitative and	Literature review.	1. Little robust research about nurses'

Paper	Aim	Sample and Setting	Design	Findings/Results
towards adult patients who are obese: Literature review (Brown, 2006).	were to gain understanding about nurses' attitudes (and directly related beliefs) towards adult patients who are overweight or obese and the methods by which these have been studied.	quantitative from 1985-2001. **Nurses** attitudes. **Canada, United Kingdom & United States of America**.	Data were extracted and summarised in tabular form and analysed in relation to the aims of the review.	attitudes towards obese patients, but a proportion of nurses may have negative attitudes and beliefs. 2. The negative attitudes, and the variables that influence them, reflect what has been found among other healthcare professionals. 3. There is a suggestion of a more complex mix of attitudes among nurses which may counter the consequences of negative stereotypes.
A qualitative study of GPs' views of treating obesity (Epstein; & Ogden, 2005).	To explore GPs' views about treating patients with obesity.	Sample type not stated **21 GPs**. **South of England.**	Qualitative study. Data collection: Semi-structured interviews. Data analysis: Interpretative phenomenological approach.	Four themes: 1. GPs conceptualise obesity in terms of responsibility and believe that its management is primarily the responsibility of the patient. 2. They believe that patients see obesity as a medical problem that should, and can be, managed by the doctor. 3. This contradiction creates a sense of conflict for the GPs as they desire to maintain a good doctor–patient relationship. 4. A need to resolve this conflict resulted in GPs sometimes offering treatments that they believed were inappropriate and offering support for patients' other associated problems.
Papers: Weight management within maternity care				
Provision of weight management advice for obese women during pregnancy: A survey of current practice and midwives' views on future	To identify midwives' knowledge and views on weight management for obese pregnant women.	Sample type not stated. 241 **midwives** working at one hospital invited to participate. 78 midwives responded.	Quantitative study Cross-sectional survey Data collection: Web-based questionnaire Data analysis: Descriptive statistics	32% response rate 1. 79% reported calculating BMI at booking. 2. 73% explain what BMI category women were in. 3. 42% advise women about weight management.

Paper	Aim	Sample and Setting	Design	Findings/Results
approaches (Macleod *et al.*, 2012).		**North East of England**.		4. 43% discuss appropriate weight gain in pregnancy. 5. 39% give weight management advice at booking appointment. 6. 13% give weight management advice later in pregnancy. 7. 15% offer personalised weight management advice. 8. 46% think that midwives should be offering weight management advice.
Maternal obesity is the new challenge: A qualitative study of health professionals' views towards suitable care for pregnant women with a Body Mass Index (BMI) ≥30kg/m^2 (Smith *et al*., 2012).	To understand health professionals' views of the impact of 'The Lifestyle Course' – 10 week antenatal community lifestyle intervention for women with a BMI ≥30kg/m^2.	Purposive sample. 30 **healthcare professionals** (midwives, sonographers, anaesthetists and obstetricians), all participants treated as homogenous group. Two hospitals in **North West of England.**	Qualitative study Data collection: Semi-structured interviews. Data analysis: Thematic data analysis.	Three themes: 1. Obesity as a conversation stopper. 2. Obesity as a maternity issue. 3. The long-term impact of maternal obesity intervention.
Maternal obesity support services: A qualitative study of the perspectives of women and midwives (Furness *et al.*, 2011).	To explore women's experiences of managing weight in pregnancy and the perceptions of women, midwives and obstetricians of services to support obese pregnant women in managing their weight.	Purposive sample. 6 **obese pregnant women** and 7 **midwives** (no obstetricians took part). **North of England.**	Qualitative study. Data collection: Separate focus groups for the women and midwives. Data analysis: Thematic analysis (data management, NVivo used).	Two themes encompassing both groups of participants: 1. Explanations for obesity and weight management. 2. Best care for overweight women.
An exploration of obese pregnant women's views of being referred by their midwife to a weight management service (Patel *et al.*, 2013).	To explore obese pregnant women's reasons for declining a referral to a weight management service in pregnancy.	Sample type not stated 15 **obese women** between 19 weeks gestation to 9 months post-partum. Central England.	Qualitative study. Data collection: Semi-structured phone interview. Data analysis: Thematic analysis.	Three themes: 1. Information from midwife. 2. Midwives in an ideal position. 3. Expectation of the midwife.

Paper	Aim	Sample and Setting	Design	Findings/Results
Using service-users' views to design a maternal obesity intervention (Khazaezadeh *et al.*, 2011).	To identify and understand the health-care needs of obese service users.	Purposive sample. 3 **obese women** attending fertility clinic 3 **obese pregnant** women 6 **obese postnatal** women **South of England.**	Qualitative study. Data collection: Semi-structured interviews for 9 participants. Focus group for 3 obese pregnant women. Data analysis: Thematic analysis.	Five themes: 1. Identification of obesity. 2. Management of obesity. 3. Barriers to weight management. 4. Myths. 5. Developing a proposed new intervention.
Why don't many obese pregnant and post-natal women engage with a weight management service? (Atkinson *et al.*, 2013).	To investigate the views and experiences of obese pregnant and post-natal women who had declined or disengaged from an evidence-based weight management service, and their reasons for doing so.	Sample type not stated 7 **obese pregnant women** who declined the referral to weight management service & 11 **women who disengaged with the service**. **Central England**.	Qualitative study. Data collection: Semi-structured interviews. Data analysis: Thematic analysis.	Four themes: 1. First contact counts. 2. Missed opportunities for support. 3. No need for help. 4. Service not meeting needs.
Weight management during pregnancy: A systematic review of qualitative evidence (Johnson *et al.*, 2013)	To identify barriers and facilitators to implementing and carrying out maternal weight management interventions.	17 **United Kingdom based** articles. **Healthcare professionals and obese pregnant women.**	Systematic review of qualitative papers using thematic synthesis.	Seven themes: 1. Access to information and advice. 2. Acceptability of advice and weight monitoring. 3. Delivery of advice and care. 4. Acting on advice and information. 5. Obesity as a sensitive issue. 6. Timing of advice. 7. Perceived control over weight and body shape.
Papers: Obese/overweight women within and outside of maternity care				
Obese women's experiences of encounters with midwives and physicians during pregnancy and childbirth (Nyman *et al.*, 2010).	To describe obese women's experiences of encounters with midwives and physicians during pregnancy and childbirth.	Sample type not stated 10 women with a BMI >30kg/m^2 who had given birth and who registered their pregnancy meeting this BMI criteria. Type of sampling not stated. **Hospital** **Western Sweden.**	Qualitative Descriptive phenomenology Data collection: Low structured one-to-one interviews. Data analysis: Thematic analysis (Karlsson's).	Five themes: 1. Being constantly aware of the obese pregnant body. 2. Being exposed and scrutinised. 3. Negative emotions and experiences of discomfort. 4. Humiliating treatment. 5. Affirming encounters.

Paper	Aim	Sample and Setting	Design	Findings/Results
A qualitative study of the experiences of women who are obese and pregnant in the UK (Furber & McGowan, 2011).	To explore the experiences related to obesity in women with BMI >35 kg/m^2.	Sample type not stated. 19 **women with a BMI >35kg/m^2** n=17 were interviewed twice, **3rd trimester and postnatally** n= 1 3rd trimester n= 1 postnatally (pre-term delivery did not have opportunity to participate in 3rd trimester) Type of sampling not stated. One maternity service in **North of England.**	Qualitative Data collection: Semi-structured one-to-one interviews. Data analysis: Framework analysis	Three themes: 1. The humiliation of being pregnant and obese. 2. The medicalisation of obesity when pregnant. 3. Stereotypes associated with being pregnant and obese.
Maternal obesity in pregnancy: Women's understanding of the risks (Keely *et al.*, 2011).	To explore obese women's perceptions of obesity as a risk factor in pregnancy and their experiences of NHS maternity care.	Sample type not stated. **10 pregnant women with a BMI >40kg/m^2** Type of sampling not stated Hospital **Edinburgh, Scotland.**	Qualitative Data collection: Semi-structured one-to-one interviews. Data analysis: Thematic analysis.	Five themes: 1. Perceptions of health. 2. Medical/obstetric problems. 3. Risk awareness. 4. Risk awareness and lived experience. 5. Experience of NHS care.
The experience of pregnant women with a body mass index >30kg/m^2 of their encounters with healthcare professionals (Lindhart *et al.*, 2013).	To describe the experiences of pregnant women with a pre-pregnant BMI >30kg/m^2 during their interface with healthcare professionals.	Purposive sample. 16 **pregnant women with a body mass index >30kg/m^2** 2nd trimester of pregnancy Type of sampling: purposive Hospital **Denmark.**	Qualitative Descriptive phenomenology Data collection: Semi-structured one-to-one interviews. Data analysis: Giorgi's data analysis framework for descriptive phenomenology. NVIV0 9 utilised for data management.	Two themes: 1. An accusatorial response from the healthcare professionals. 2. A lack of advice and helpful information on how to cope with being pregnant while obese, and how this might affect the pregnant woman's health and that of her unborn child.
Weight stigma in maternity care: Women's experiences and care providers' attitudes (Mulherin *et al.,* 2013).	To examine the relationship between a woman's self-reported pre-pregnancy BMI & perceived quality of treatment by care	Sample type not stated. 2240 **women who had delivered a live born baby**. 693 responded but only 627 provided details to enable calculation of re-pregnancy	Quantitative Postal survey questionnaire Set statements re- positive qualities of care and negative qualities of care received.	1. High BMI pre-pregnancy was a significant predictor for perceived negative treatment during pregnancy. 2. There was no perceived negative treatment received during labour

Paper	Aim	Sample and Setting	Design	Findings/Results
	providers during and after pregnancy.	BMI **Australia.**	Data analysis: Inferential statistics	care. 3. Perception was that less positive care was received postnatally. 4. Results pre-pregnancy BMI statistical mean = 24.66 kg/m^2, range = 15.57–46.50kg/m^2
Women's stories of their experiences as overweight patients (Merrill & Grassley, 2008).	To illuminate the meaning of women's experiences as overweight patients in their encounters with healthcare services and healthcare providers.	Sample type not stated. 8 **overweight women** who had received healthcare (not maternity care). **United States of America.**	Qualitative study. A hermeneutic phenomenological approach. Data collection: Low structured interviews. Data analysis: Thematic analysis	Four themes: 1. Struggling to fit in. 2. Being dismissed. 3. Feeling not quite human. 4. Refusing to give up.

Appendix 4: Ethical Approval Letter for Part 1 – Faculty Research Ethics Committee

EMW/bh

12th November 2010

[redacted]

[redacted]

Dear [redacted]

Ethical Approval Granted

FH&SC Ethics Number: RESC1110-249
Course of Study: Research Degree (PGRD/HS)
Supervisor: [redacted]

Student Number: [redacted]

I am pleased to inform you that the Research Ethics Sub Committee of the Faculty pf Health and Social Care have approved your project **"A Phenomenological study of midwives experiences of caring for women with a raised BMI of 30> during the childbirth process."**

However, the reviewers would like you to:

- Consider the practicalities of reimbursing the participants for travel and child care and how this will be managed
- Be clearer about the point of the study and explain how it will be of benefit.
- Include discussion regarding the benefits to clinical practice.
- Correct the typos.

Approval is subject to the above and following conditions:

1. That you provide a brief report for the sub-committee on the completion of your project.
2. That you inform the sub-committee of any substantive changes to the project.

May I take this opportunity to extend the best wishes of the Sub Committee and its Chairman for the successful completion of your project.

Yours sincerely

[redacted]

Chair, Faculty Research Ethics Sub-Committee

cc Research Knowledge Transfer Office

[redacted]

Appendix 5a: Ethical Approval Letter for Part 2 – Faculty Research Ethics Committee

[redacted]

30th July 2013

[redacted]

Dear [redacted]

Ethical Approval Granted

FH&SC Ethics Number: RESC0613-416
Course of Study: PhD
Supervisor: [redacted]
Student Number: [redacted]

I am pleased to inform you that the Research Ethics Sub Committee of the Faculty of Health and Social Care have approved your project **"3rd Year student midwives and midwifery lecturer's views on the issues and training required to care for women with raised BMIs during the childbirth continuum."**

Approval is subject to the above and following conditions:

1. That you provide a brief report for the sub-committee on the completion of your project.
2. That you inform the sub-committee of any substantive changes to the project.

We approve your application to go forward to the next stage of the approval process. If you are applying to IRAS and require a sponsorship letter and insurance documentation please contact [redacted].

If you have any questions or require any further assistance please contact [redacted] by email

Yours sincerely

[redacted]

Chair, Faculty Research Ethics Sub-Committee

cc Research Knowledge Transfer Office
cc Academic Supervisor

[redacted]

Appendix 5b: Ethical Approval Application Form for Part 2 – Faculty Research Ethics Committee

University of [redacted]

University of [redacted]
Faculty of Health and Social Care
Research Ethics Committee

Applying to the Faculty of Health and Social Care
Research Ethics Committee

Application form

Please use the guidance notes to assist you in completing this application for ethical approval. The boxes will automatically enlarge to allow you to complete each section as fully as possible.

1. Name of lead researcher and applicant [please attach CV]

[redacted]

2. Contact Details

Address: Department of Midwifery, Faculty of Health & Social Care, [redacted]

(Home address: [redacted]

Daytime phone [redacted]
Mobile [redacted]
e-mail address [redacted]

3. Full and short title

Full title: (Part 2) 3rd year student midwives and midwifery lectures views on the issues and training required to care for women with raised BMIs during the childbirth continuum.

Short title: What it means to care for women with raised BMIs during the childbirth continuum.

4. Additional researchers

5. Supervisory/mentoring arrangements
I am registered to study for a PhD, my supervisors are [redacted] whom I plan to meet with per the Graduate School's requirements.

6. Have you obtained/will you require ethical approval from another source?
NRES approval was obtained for part 1 of this study on the 11th May 2011 and Faculty Ethics approval 12th November 2010 (RESC1110-249).

7. Research outline , including:

- **Brief outline of study, aims and objectives**

Part 1 of this PhD study achieved Faculty Ethics approval on the 12th November 2010 and NRES approval on the 11th May 2011, and Research and Development approval from four NHS Trusts by 7th October 2011. The research question for the study was 'What does it mean to midwives to care for women with raised BMIs during the childbirth continuum?' This research question has been met, by the conduction of 16 one to one interviews with midwives and subsequent data analysis, which has realised 21 themes and 5 super-ordinate themes. 'Catch 22, Size Matters, Negative Impact, That Sinking Felling and Caring Against All Odds'. The research methodology utilised was Interpretative Phenomenological Analysis (IPA). IPA is a qualitative dynamic research process, which allows a subjective exploration of an experience from a participants' perspective and is therefore phenomenological in essence (Smith, 1996). 'IPA researchers are especially interested in what happens when the everyday flow of lived experience takes on a particular significance for people' (Smith et al, 2009, p1). There is a clear emphasis on the importance of the participants' individual accounts. It is essentially interpretative, but it also draws on descriptive phenomenology in allowing the participants to give a credible account of a phenomenon from their perspective. By following this approach an explanation as well as a description of an experience can be achieved (Quinn & Clare, 2008). IPA will also be used for part 2 of this study

This study now requires expansion to meet PhD requirements and therefore Part 2 will determine 3rd year student midwives and midwifery lectures views on the issues and training required to care for women with raised BMIs during the childbirth continuum. Boxes 1 and 2 give the aims of and objectives of part 2.

Box 1: Aims

Box 1: Aims
• To determine what it means to student midwives on the point of qualification to care for women with raised BMIs.
• To determine what it means to midwifery lecturers to prepare students midwives to care for women with a raised BMI.

Appendix 6: Ethical Approval Letter for the Study from the NRES

NHS
National Research Ethics Service
NRES Committee North West - Greater Manchester South
Northwest Centre for Research Ethics Committees
3rd Floor - Barlow House
4 Minshull Street
Manchester
M1 3DZ

Telephone: 0161 625 7830
Facsimile:

11 May 2011

Private & Confidential

[redacted]

Dear [redacted]

Study Title: **A Phenomenological study of midwives experiences of caring for women with a raised BMI of 30> during the childbirth process**

REC reference: **11/H1003/7**

Thank you for your letter of 11 April 2011, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair along with [redacted]

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

11/H1003/7	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project

Yours sincerely

PP [redacted]

Dr [redacted]
Chair

Email: [redacted]@northwest.nhs.uk

Enclosures: "After ethical review – guidance for researchers"

Copy to: [redacted]

Appendix 7: Research & Development Site A Approval Letter

[redacted]

Our Ref : WHH11-004

23rd June 2011

[redacted]

Tel: [redacted]
Fax [redacted]

[redacted]

Dear [redacted]

REF:	A PHENOMENOLOGICAL STUDY OF MIDWIVES EXPERIENCES OF CARING FOR WOMEN WITH A RAISED BMI OF 30> DURING THE CHILDBIRTH PROCESS
NRES REF:	11/H1003/7
R&D REF:	WHH11-004
PROTOCOL: NO VERSION NUMBER AND UNDATED	
PARTICIPANT INFORMATION SHEET: VERSION 5 DATED 18th MAY 2011	
PARTICIPANT CONSENT FORM: VERSION 3 DATED 18th MAY 2011	
LETTER OF INVITATION TO PARTICIPANTS: VERSION 4 DATED 18th MAY 2011	

Members of the R&D Group considered the information supplied in relation to this research study. After due consideration by members of the committee, they would welcome the opportunity for this research to be conducted within [redacted] NHS Foundation Trust.

Please note that approval is granted subject to the following conditions:

- The research is conducted in line with the guidance given within the Research Governance Framework for Health and Social Care (2005) 2nd edition and where appropriate the Medicines for Human Use (Clinical Trial) Regulations 2004. You must also apply the principles of ICH Good Clinical Practice in conduct of your research

- The research will be conducted in compliance with Trust Policies and carried out in accordance with the Data Protection Act (1998), Human Tissue Act 2004, Health & Safety at Work Act and the Caldicott principles and NHS Code of Confidentiality

- Any proposed changes or amendments to the protocol will be notified to the ethics committee, the research sponsor and R&D manager

- Each member of the research team is qualified by education, training and experience to perform his/her respective role in the study.

- Students and new researchers must have adequate supervision, support and training

- Procedures are in place to ensure collection of high quality, accurate data and the integrity and confidentiality of data during processing and storage.

- All data and documentation associated with the research will be made available for audit at the request of the appropriate auditing authority

- Adverse Event and Serious Adverse Event reporting. If [redacted] Hospitals NHS Foundation Trust acts as sponsor, reporting will be responsibility of the Chief Investigator and they must report this information to the [redacted] and to ethics. A copy of all SAE's (including SUSAR's) and all annual safety reports must also be copied to the R&D Department. Where the Trust is not the sponsor of the trial, then all SUSAR's related to Trust patients MUST be copied to the R&D department when submitting to the sponsor

- Arrangements are to be made for the appropriate archiving of data when the research has finished

- On completion of the research you must complete and return a progress report to the R&D Manager at [redacted] NHS Foundation Trust

- If your project has been adopted by the National Institute for Health Research (NIHR) portfolio you will be required to provide monthly recruitment figures to the R&D Department and address any issues affecting recruitment

Yours sincerely

[redacted]

R&D MANAGER

Copy To:

Professor [redacted]
[redacted] Consultant Obs & Gynae
R&D File

Signed:[redacted].....Principal Investigator Date:29/6/11

Appendix 8: Research & Development Site B Approval Letter

[redacted] NHS

Clinical Effectiveness
[redacted]

Tel: [redacted]
Fax. No. [redacted]

Email: [redacted].nhs.uk

Study ID 34/10
Date 12th August 2011

[redacted]

Dear [redacted]

Re. A study of midwives experiences of caring for women with a BMI of 30>

Thank you for the information forwarded regarding the above. I am pleased to be able to grant approval for the study to be carried out at the [redacted] NHS Trust in the manner as specified in the documents supplied. All studies carried out must strictly adhere to the requirements of the Research Governance Framework for Health and Social Care, 2nd ed, April 2005.
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4122427.pdf

The documents reviewed and approved were:

Document	Version	Date
Protocol	1	07/01/2011
Participant Information Sheet	5	18/05/2011
Participant Consent Form	3	18/05/2011
Letter of Invitation to participant	4	18/05/2011
Advertisement	3	18/05/2011

On completion of the research please forward a copy of the results/or publication details to the Research and Effectiveness Manager, Clinical Effectiveness, Research and Development Department, Education and Training Centre, [redacted] Hospital, [redacted]

Yours sincerely

[redacted]

Research and Development Manager
cc. [redacted]

Appendix 9: Research & Development Site C Approval Letter

Research & Development Office

[redacted]

[redacted] NHS

NHS Foundation Trust

[redacted]

01/09/2011

RE: **A Phenomenological study of midwives experiences of caring for women with a raised BMI of 30> during the childbirth process**

REC REF: **11/H1003/7**

[redacted] STUDY ID: 2011212.4

Dear [redacted]

I am pleased to inform you that, from a governance point of view, [redacted] Hospitals NHS Foundation Trust is happy to be a Participant Identification Centre (PIC) in line with the protocol submitted.

Approval is granted in accordance with the National Institute for Health Research – Governance Checks for Participant Identification Centres. I must remind you that, although as a [redacted] is not considered to be a research site, the Research Governance Framework for Health and Social Care is the framework used by the trust for our research management and governance. As part of these requirements, you must ensure that the R&D Department at [redacted] is notified of any amendments to the study.

Yours sincerely,

[redacted]

Research Management and Governance Lead

[redacted]

Appendix 10: Research & Development Site D Approval Letter

[redacted] NHS

NHS Foundation Trust

[redacted]

Research & Development Department
Tel: [redacted]
Email: [redacted]

07-OCT-2011

CONFIDENTIAL

[redacted]

Dear [redacted]

Study Title: **A Phenomenological study of midwives experiences of caring for women with a raised BMI of 30> during the childbirth process**

REC Ref: **11/H1003/7**

The R&D Committee is pleased to approve this project, together with the indemnity and financial assessments and hopes that it proves to be interesting and rewarding.

You are reminded that although this project has been approved by the Trust's R&D Committee, all research must also have appropriate ethical committee approval **before** it is undertaken.

As part of research governance, the R&D Committee is required to monitor the progress and outcome of research within the Trust. Therefore, whilst this project continues [redacted] Research Manager will be in contact annually to request a brief update and the Committee would be grateful for a summary on completion of the project, (if available, a copy of any publication or an abstract of a presentation relating to this study would suffice).

Conditions of approval

In addition, please note you must inform us if your project deviates in any way from the original proposal/documentation you have submitted. Your approval is limited to the dates stated on the research application form and that you are obliged to notify the R&D Department of any adverse events that arise during the course of the project. May I remind you that you are obliged to adhere to the Research Governance Framework for Health and Social Care (2005). If it is found that this is not the case, this may result in the suspension of your project until changes have been agreed with the Trust, or your research may be terminated pending an enquiry.

[redacted]

Permissions

This letter authorises you in principle to undertake research within the Trust. However, it is your responsibility to ensure that individuals appropriate to your work have no objections to your studies. This department accepts no liability for non co-operation of staffs or patients.

Auditing

I would strongly urge you to maintain an accurate and up to date site file for your documentation, as the Trust randomly audits projects to assess compliance with the relevant frameworks and legislation. If your study is chosen, you will be notified in writing not less than two weeks prior to the required submission date of documentation.

Reporting

In the interest of ensuring the Trust receives maximum benefit from co-operating with research projects such as your own, the Trust places great importance on disseminating findings and conclusions. Therefore we would welcome a short summary of the findings of this project, once completed, along with any formal publications resulting from this work.

I would like to take this opportunity to wish you well with your project. If you have any questions or I can be of any further assistance to you, please do not hesitate to contact me.

Yours sincerely

[redacted]

[redacted]
Research Manager

Chairman: [redacted] Chief Executive: [redacted]

Appendix 11: Part 1 Midwives’ Invitation Letter

Dear Midwife Date

Study Title: Midwives experiences of caring for women with a BMI of 30>.

I am undertaking a new research study to determine midwives experiences of caring for the increasingly obese maternity population. There is an obesity epidemic in the UK and recent medical research has indicated that this client group and their babies are at increased risk to a variety of complications to their health. As you are likely to have cared for at least one woman who at booking was found to have a BMI of 30 and above; this is an invitation for you to take part in this study. There is no requirement to take part but if you have cared for such a client antenatally, intrapartum or postnatally your input would be very much appreciated.

The potential benefits of taking part are that you have the opportunity to air your own thoughts, feelings and experiences of caring for women with BMIs ≥30kg/m^2, knowing that the study's findings will be published to provide an original insight into midwives' experiences of caring for these women.

Taking part will involve an informal interview, you will be invited to tell me about your experiences of caring for this client group. Your participation will be kept confidential and anonymity will be assured in that you will not be identified as having participated in the research or in the study's findings.

If you would like some more information or have any questions, then please do contact me on the phone number or email address given at the end of this invitation. I am happy to speak to you and send you an information sheet with no obligation on your part to participate.

This study is being conducted by xxxxxxxxxxx, Dept of xxxxxxx, Faculty of xxxxxxx, University of xxxxxxx as part of her PhD studies.

Contact details: xxxxxxxxxxxx

Dept of xxxxxxxxxxxxx

Address xxxxxxxxxxxxx

Thank you for your interest in this research.

Appendix 12: Part 2 Student Midwives' Invitation Letter

Dear Midwifery Student, Date

You are being invited to take part in a research study.

The purpose of this study is to determine what it means to **3rd year student midwives to care for women with raised BMIs during the childbirth continuum.** There is an obesity epidemic in the UK and recent medical research has indicated that this client group and their babies are at increased risk to a variety of complications to their health. You have been invited to take part, because you will have cared for at least one woman who at booking was found to have a BMI ≥30kg/m^2. You may have cared for this client antenatally, intrapartum or postnatally.

You do not have to take part in this study if you do not wish to and this will not affect your position on the midwifery programme. If you do decide to participate or have any questions, then please do contact me on the phone number or email address given at the end of this invitation. If you are interested in taking part, a further information sheet will be sent to you.

If you agree to take part, I will arrange for a mutually agreed time and place at the xxxxxx Campus to conduct an informal interview with you. I will ask you to tell me about what it means to you to care for women with raised BMIs (>30) during the childbirth continuum? I will seek your permission to audiotape the interview. Your participation will be kept confidential and anonymity will be assured in that you will not be identified in the study's findings.

This study is being conducted by xxxxx, xxxxxx, Dept of xxxxx, Faculty xxxxxxx, University of xxxxxx as part of her PhD studies.

Thank you for reading this invitation.

xxxxxxxx

Contact details: xxxxxxx

Dept of xxxxxxx

Faculty of xxxxxxxxxxx

University of xxxxxxxx

Appendix 13: Poster Advertising Study for Part 1

MIDWIVES!

You are invited to take part in a new research study relating to Midwives experiences of caring for women with a BMI of 30 and above.

- The current obesity epidemic in the UK has led recent medical research to indicate that this client group and their babies are at an increased risk to a variety of complications to their health.
- Most of you are likely to have cared for at least one woman who at booking was found to have a BMI ≥30kg/m^2. You may have cared for this client antenatally, intrapartum or postnatally. This is an opportunity to air your own thoughts, feelings and experiences of caring for such women, thereby providing an original insight into your experiences.
- Taking part will involve an informal interview, where you will be invited to tell me about your experiences of caring for this client group. Your participation will be kept confidential and anonymity will be assured in that you will not be identified as having participated in the research or in the study's findings.
- If you would like some more information or have any questions, then please do contact me on the phone number or email address given at the end of the poster. I am happy to speak to you/send you an information sheet with no obligation on your part to participate.

This study is being conducted by xxxxxxx, Dept of xxxxx, Faculty of xxxxxxx, University of xxxxx as part of her PhD studies. Contact details: xxxxxxx

Closing date xxxx

Thank you for your interest in this research.

Appendix 14: Part 1 Midwives' Information Sheet

Study title: Midwives experiences of caring for women with a BMI of ≥30kg/m^2

You are being invited to take part in a research study. Before you decide to take part it is important to understand why the study is being done and what it will involve. Please take the time to read the following information carefully and discuss it with others if you wish. Please do not hesitate to contact me if further clarification or information is required.

Thank you for reading this information.

What is the purpose of the study?

The purpose of this study is to determine midwives experiences of caring for the increasingly obese maternity population. There is an obesity epidemic in the UK and recent medical research has indicated that this client group and their babies are at increased risk to a variety of complications to their health.

Why have I been invited?

You have been invited to take part, because you will have cared for at least one woman who at booking was found to have a BMI of 30 and above. You may have cared for this client antenatally, intrapartum or postnatally.

Do I have to take part?

It is up to you to decide to join the study. You will be given this information sheet to keep and asked to sign a consent form. If you decide to take part you are free to withdraw from the study at any time without giving a reason.

Expenses

Travel and childcare expenses are available. Expenses will need to be supported by receipts.

What will happen to me if I take part?

Once you have agreed to take part, I will arrange for a mutually agreed time, date and place (can be in your home, at the nearest University campus, or my office at the xxxxx to conduct an informal interview with you. I will seek your permission to audiotape the interview, for it to be transcribed and also to use anonymised quotes in future publications or conference presentations.

During the interview I would like to discuss with you your experiences of caring for this client group. The time that is required for the interview to take place could vary between 30 to 90 minutes (this is very dependent on what you have to say). A transcript of the interview will be returned to you for you to confirm or refute whether it is a true representation of your experiences.

What are the possible disadvantages and risks of taking part?

There are no perceived risks to you taking part, but in the unlikely event that retelling your work experiences causes you to be upset, because of unresolved issues, there is a facility for a self-referral pathway to Occupational Health and to your Supervisor of Midwives in your place of work. Also, xxxxxx will be available to talk through these issues with you.

A disadvantage to taking part is the time required to participate as this will potentially take you away from your workplace or require you to give up some of your off duty time.

What are the possible benefits of taking part?

The potential benefits to taking part are that you have the opportunity to air your thoughts, feelings and experiences of caring for women with BMIs ≥30kg/m and being aware that the study's findings will be published providing an original insight into midwives experiences of caring for such women.

Will my taking part in the study be kept confidential?

All information which is collected during the course of the study will remain strictly confidential. Any information about you, your individual views and your place of employment will be made anonymous so that you cannot be recognised from it. As part of the National Research Ethics Service, however there must be a process to follow if in the unlikely event unsafe practice is disclosed during the interview. In such circumstances, once the interview is concluded, the researcher will discuss with you if unsafe practice has been disclosed. As you will have agreed to contact your Supervisor of Midwives as part of the consent process if unsafe practice is disclosed, the researcher will advise you to do so.

What will happen to the results of the research study?

The research study will be submitted for publication; it will also be presented at local, national and international events. A summary of the study will be available for participants on request from xxxxxx.

Who is organising and funding the research?

As the study is part of an academic qualification (PhD), the researcher is organising the project. Her employer has agreed to be financially supportive for the duration of the study through payment of course fees, salary and study leave. Participant expenses are to be funded from the proceeds of an academic textbook, which the researcher has co-authored.

Who has reviewed the research study?

The research study has been reviewed and approved by the University of xxxxxx, Faculty xxxxxx Research Ethics Sub Committee and NRES Committee North xxxxxx. Throughout the duration of the study research supervisors will also review the study.

What if there is a problem?

If you wish to complain or have any concerns about any aspect of the way you have been approached or treated during the course of this study, please contact:

Professor xxxxxx, Dean of the Faulty xxxxxx
Telephone: xxxxxx or email: xxxxxx

Who may I contact for further information?

If you would like more information about the research before you decide whether or not you would be willing to take part;

Please contact: xxxxxx Department of xxxxxx, Faculty of xxxxxx, University of xxxxxx

Telephone: xxxxxx
Email: xxxxxx

Thank you for taking the time to read and consider this information sheet and for your interest in this research.

Appendix 15: Part 2 Student Midwives' Information Sheet

Study title: What it means to 3rd year student midwives to care for women with raised BMIs during the childbirth continuum.

You are being invited to take part in a research study. Before you decide to take part it is important to understand why the study is being done and what it will involve. Please take the time to read the following information carefully and discuss it with others if you wish. Please do not hesitate to contact me if further clarification or information is required.

Thank you for reading this information.

What is the purpose of the study?

The purpose of this study is to determine what it means to 3rd year student midwives to care for women with raised BMIs during the childbirth continuum. There is an obesity epidemic in the UK and recent medical research has indicated that this client group and their babies are at increased risk to a variety of complications to their health.

Why have I been invited?

You have been invited to take part, because you will have cared for at least one woman who at booking was found to have a BMI of 30 and above. You may have cared for this client antenatally, intrapartum or postnatally.

Do I have to take part?

It is up to you to decide to join the study. You will be given this information sheet to keep and asked to sign a consent form. If you decide to take part you are free to withdraw from the study at any time, without giving a reason. If you agree to participate, do not agree to participate or agree to participate and then decide to withdraw from the study your position as a student on the midwifery programme will not be affected in any way.

What will happen to me if I take part?

Once you have agreed to take part, I will arrange for a mutually agreed time and date to conduct an informal interview with you. The location for the interview will be in a private room at the xxxxxx campus. I will seek your permission to audiotape the interview, for it to be transcribed and also to use anonymised quotes in future publications or conference presentations. I will ask you to tell me about what it means to you to care for this client group. The time that is required for the interview to take place could vary between 30 to 60 minutes (this is very dependent on what you have to say).

What are the possible disadvantages and risks of taking part?

There are no perceived risks to you taking part, but in the unlikely event that retelling your work experiences causes you to be upset, because of unresolved issues, XXXXXXX will be available to talk through these issues with you.

A disadvantage is the time required to participate.

What are the possible benefits of taking part?

The potential benefits to taking part are that you have the opportunity to air your thoughts, feelings and experiences of caring for women with BMIs ≥30kg/m^2 and being aware that the study's findings will be disseminated (published) providing an original insight into student midwives (your) experiences of caring for these women.

Will my taking part in the study be kept confidential?

All information which is collected during the course of the study will remain strictly confidential. Any information about you, your individual views and your practice placement will be made anonymous so that you cannot be recognised from it.

What will happen to the results of the research study?

The research study will be submitted for publication; it will also be presented at local, national and international events. A summary of the study will be available for participants on request from xxxxxx.

Who is organising and funding the research?

As the study is part of an academic qualification (PhD), the researcher is organising the project. Her employer has agreed to be financially supportive for the duration of the study through payment of course fees, salary and study leave.

Who has reviewed the research study?

The research study has been reviewed and approved by the University of xxxxxx, Faculty of xxxxxx Research Ethics Sub Committee. Throughout the duration of the study research supervisors will also review the study.

What if there is a problem?

If you wish to complain or have any concerns about any aspect of the way you have been approached or treated during the course of this study, please contact:

xxxxxx Executive Dean of the Faculty xxxxxx, University of xxxxxx

Telephone: xxxxxx

Who may I contact for further information?

If you would like more information about the research before you decide whether or not you would be willing to take part;

Please contact: xxxxxx, Department of xxxxxx, Faculty of xxxxxx, University of xxxxxx.
Telephone: xxxxxx

Email: xxxxxx

Thank you for taking the time to read and consider this information sheet and for your interest in this research.

Appendix 16: Part 1 Midwives' Consent Form

CONSENT FORM

Participant Number:

Title of Project: What is means to midwives to care for women with a BMI ≥30kg/m^2 during the childbirth continuum

Name of Researcher: xxxxxx

Please initial box

1 I confirm that I have read and understood the participant information sheet, dated ……., ☐

for the above study and have had the opportunity

to ask questions.

2 I understand that my participation is voluntary and that I am free to withdraw at any time, without ☐

giving any reason.

3 I agree to participate in this interview. ☐

4 I agree to the interview being tape recorded. ☐

5 I agree to the interview being transcribed. ☐

6 I agree to the use of anonymised quotes to be used in future publication and conference presentations.

7 I agree to discuss any elements of unsafe practice with my Supervisor of Midwives. ☐

8 I agree to take part in the above study. ☐

_____	_____	_____
Name of participant	Date	Signature

_____	_____	_____
Name of researcher	Date	Signature

Appendix 17: Part 2 Student Midwives’ Consent Form

Consent form

Title of Project: What it means to 3rd year student midwives to care for women with BMIs ≥30kg/m^2 during the childbirth continuum.

Name of Researcher: xxxxxx

PLEASE INITIAL BOX

1. I confirm that I have read and understand the information sheet dated ……. for the above study and have had the opportunity to ask questions. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason or legal rights being affected. ☐
3. I agree to take part in the above study. ☐
4. I agree for the interview to be audio-taped. ☐
5. I agree for anonymous quotes from the interview to be used for publication. ☐

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Researcher	Date	Signature

(1 for participant; 1 for researcher)

Appendix 18: Example of Transcript with Manual Initial Noting

Interview with Participant 6

Interviewer: Welcome Participant 6. Thank you for taking part. Please can you tell me what it means to you to care for women either antenatally, intrapartum or postnatally with BMIs $\geq 30kg^2$?

Participant 6: I would say we're probably noticing an increase in ladies with a raised BMI. Whether it's just something that we are now sort of making a note of in the notes you know, at booking, so we're more aware I'm not sure but you know, I'm based in the day unit at the minute so our GTTs [Glucose Tolerance Tests] that we do first thing in a morning, quiet a lot of these GTTs are being done because of raised BMI, not you know, we have a lot of other reasons why people get the GTT done but the majority I would say is now is coming through is because of a raised BMI. And also on the wards too I've noticed, you know, that they fall…it puts them into our high risk category. So obviously, you know, they're getting sort of well, care put upon them really, sort of how their care is going to go changes because they're placed into a higher risk category and in the day unit specifically I had a lady last week with a raised BMI of 39, twin pregnancy.

Interviewer: Gosh.

Participant 6: …and she was in the waiting room, notes came through, I looked in the diary and it was like BMI 39 and twin pregnancy and I've got to admit my heart just sunk. I just thought oh no! I've got to monitor these twins and I just knew because it was a raised BMI that I would…that there would potentially be difficulty. Well I brought the lady through, you know, she was quite happy to be monitored and everything. I can't really remember the specific res…oh that's right, she'd come in that was it, she'd come in because of reduced foetal movements and I just thought, oh, you know. I've got to get a decent CTG [Cardiotogograph] here because she's come in for reduced foetal movements, what am I gonna do? So she was comfortable, I got her on the monitor and could not…she'd been in sort of before, the week before but for something else and they'd tried to do a monitoring and she just said to

me they couldn't get...hear the babies at all. I had to have a scan. So I thought oh here we are. So I got the monitor and everything and she was quite happy and I tried for about 15-20 minutes and I had that monitor every which way and there was just no way. I couldn't hear at all. I couldn't even get the placenta. Nothing. And so in the end I just phoned the registrar and said look I've got this lady, she's come in, twin pregnancy, she's concerned about her movements, will you please come and scan her because I just cannot hear these babies at all. And he said that's fine, I'll come down and he scanned and he said to me, he said, to be honest I found it really difficult when I'm scanning. He said I found it really difficult. He said it's no wonder you've really struggled he said because he said I have really struggled with the scanner he said because you know, because she...of like the maternal build he said, I just couldn't get through it all to like even get to the babies with the scanner. So anyway, it turned out you know, everything was good, you know, the FHs [Fetal Hearts] they were there you know? Mum was reassured, was quite happy and I said to him look I've not been able to do this monitoring and he said that's fine, we've seen them on the scan, they look well, they're moving on the scan, their fetal hearts are fine. Hopefully next time she comes we'll get it and it'll be better but you feel awful because you've not got this CTG that you know you should officially have but what can you do? You know, if it's down to their you know, size then it's...it's very difficult because you know, you're just...you can't, you can't get what you can't get.

Interviewer: Yes.

Participant 6: So it was a good outcome. She'd seen. She was happy that the babies were OK so that's fine and she's not been back in since but you know. We've got another lady coming through at the minute that I know of who is also a twin pregnancy raised BMI and they've really struggled several times with her as well to you know, to get these babies in, you know, and you kind of find that you're listening in a different position. You know, you're not feeling where the babies are, listening...you're looking, you're putting the monitor, the CTG monitor central and you know, angling through everything to get to these babies to monitor. So it is a different way of monitoring and I

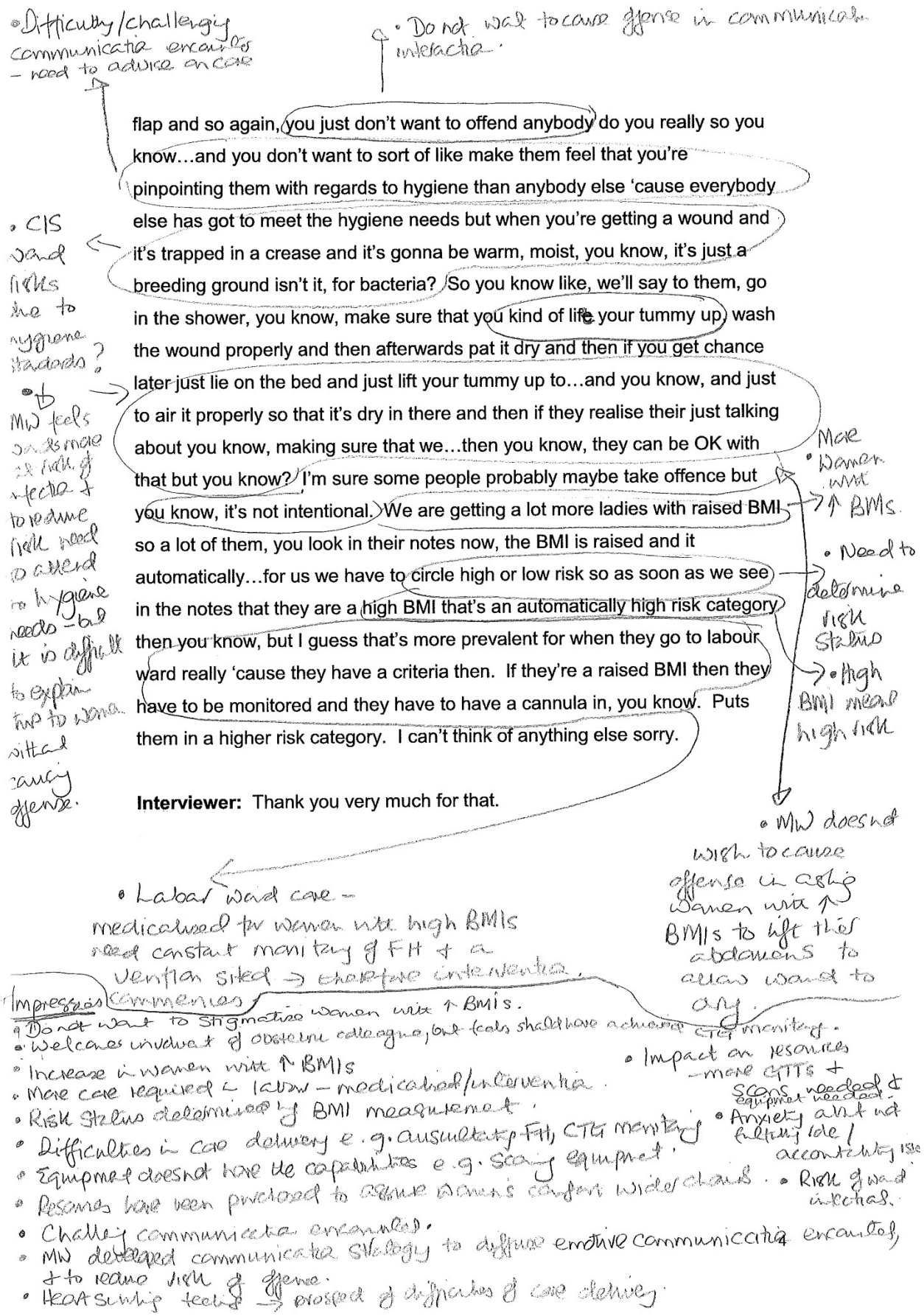
don't know whether they've got, you know. We just have this one type…the one type of monitor. We've got the sonic aid and the, you know, the monitors and other than that we've not got any other monitors. I don't know whether they have elsewhere but…or whether something will be made that you know, but it is very difficult, yeah. And I know that on the ward we do have like different chairs you know, for the patients. Like when I work up on the ward, if we do get somebody with a raised BMI and it's significantly raised then we do have sort of wider chairs for those ladies and the beds do have a weight limit and things, yeah. So that's what I've noticed really.

Interviewer: Really.

Participant 6: I don't know whether some of them are embarrassed that they're coming for a GTT because of the raised BMI because they are aware of the reason that they're coming. They tend not to say anything really but we did have one lady who was quite offended that we were even asking her to have a GTT because you know, of her raised BMI. She was…I think she was quite offended by that. But we just sort of explain look, it's just…it's just one of those, you know, it's just policy. So it's…it's a certain criteria, you know, you're ethnicity, you know, polycystic ovaries, family history, you know, so it's one in the list. It's not that you're being pinpointed. It's just one in the list, you know? And tried to sort of reassure her it was nothing personal that you know, that it was just kind of, you know, she wasn't being targeted, you know. Solely that we do have a list of criteria and it's just within the risk that she might be slightly raised. You know, chance of having diabetic and it was important to find out.

Interviewer: Yes.

Participant 6: Yes. And on the ward, can't say there was anything necessarily. I think yeah, maybe with the caesarean ladies. The caesarean ladies, the wounds, sometimes if they're a raised BMI because of the skin folds you worry about the wounds whether they're gonna heal alright because of, you know, it's difficult to sort of necessarily clean in, you know, in that skin



flap and so again, you just don't want to offend anybody do you really so you know…and you don't want to sort of like make them feel that you're pinpointing them with regards to hygiene than anybody else 'cause everybody else has got to meet the hygiene needs but when you're getting a wound and it's trapped in a crease and it's gonna be warm, moist, you know, it's just a breeding ground isn't it, for bacteria? So you know like, we'll say to them, go in the shower, you know, make sure that you kind of lift your tummy up, wash the wound properly and then afterwards pat it dry and then if you get chance later just lie on the bed and just lift your tummy up to…and you know, and just to air it properly so that it's dry in there and then if they realise their just talking about you know, making sure that we…then you know, they can be OK with that but you know? I'm sure some people probably maybe take offence but you know, it's not intentional. We are getting a lot more ladies with raised BMI so a lot of them, you look in their notes now, the BMI is raised and it automatically…for us we have to circle high or low risk so as soon as we see in the notes that they are a high BMI that's an automatically high risk category then you know, but I guess that's more prevalent for when they go to labour ward really 'cause they have a criteria then. If they're a raised BMI then they have to be monitored and they have to have a cannula in, you know. Puts them in a higher risk category. I can't think of anything else sorry.

Interviewer: Thank you very much for that.

Appendix 19: Part 2 NVivo Data Management – Node ‘Promotes Normality’

<Internals\\Participant 1b> - § 2 references coded [5.47% coverage]

Reference 1 - 2.99% coverage
I do think we do encourage women, we do encourage normality. We encourage them to mobilise as much as they can, even when they're on the monitor, encourage them to mobilise and stay upright. We have the use of aromatherapy oils, we offer that to all women. So I definitely think the promotion of normality even with women with raised BMIs is essential.

Reference 2 - 2.48% coverage
Unless there's any other factors. So between 30 and 35 they can even have use of the pool. We've got on order a monitor that can go in the pool so hopefully soon we'll be able to have even women with BMIs above 35 using the pool. So again that will further promote normality.

<Internals\\Participant 2b> - § 2 references coded [5.73% coverage]

Reference 1 - 1.41% coverage
During her labour actually she was quite good. She was willing to adopt the positions given that she was hooked up to the CTG machine.

Reference 2 - 0.86% coverage
But even so I still try and do the normal things, try and promote normality.

<Internals\\Participant 3b> - § 3 references coded [3.04% coverage]

Reference 1 - 0.59% coverage
Because normally you know, we treat them exactly the same and still get them, you know, standing up and stuff.

Reference 2 - 0.53% coverage
I personally try to treat everybody the same and you know, still encourage all of the mobilisation and things like that.

Reference 3 - 1.92% coverage
I feel quiet passionately about how medicalised midwifery has become and I know we can't go back from that now, you know, because of the clientele that we're looking after but I think our fundamentals of promoting normality and you know, keeping your lights low and creating a nice environment for her, they're like the foundations, the starting point of it. I'll still do that for everybody that I can.

<Internals\\Participant 4b> - § 1 reference coded [0.35% coverage]

Reference 1 - 0.35% coverage
I think I'd try with any woman, try and promote normality.

<Internals\\Participant 5b> - § 1 reference coded [1.42% coverage]

Reference 1 - 1.42% coverage

It’s what we should be doing because… it’s better for them in the long run to have a normal vaginal delivery than it is to have a section. So normality as regards to a normal labour is so much more beneficial for them in the long run. I think it, you know, it should be, it should be the norm.

<Internals\\Participant 7b> - § 2 references coded [3.14% coverage]

Reference 1 - 1.04% coverage

I try to promote normality to everybody. Whether they take it up or not… it’s to help them.

Reference 2 - 2.11% coverage

I mean to me it doesn’t matter what BMI they’ve got, I try and promote everyone equally the same myself. You know, try and get them up as much as they can and so it doesn’t make a difference to me, no.

Appendix 20: Part 1 NVivo Data Management Example

	Name	Sources	References	Created On	Created By	Modified On	Modified By	
	Apologetic, vulnerable & embarrassed women	9	17	01/06/2012 11:03	TR	19/07/2012 08:34	TR	
	Associated risks	6	13	31/05/2012 08:42	TR	19/07/2012 09:05	TR	
	Communicating risks	8	11	31/05/2012 09:47	TR	19/07/2012 09:38	TR	
	Hard work	7	19	31/05/2012 10:39	TR	19/07/2012 10:33	TR	
	Health promotion	8	20	31/05/2012 15:32	TR	19/07/2012 11:04	TR	
	Homebirth	5	7	01/06/2012 10:01	TR	19/07/2012 11:34	TR	
	Ideas for improving the service	5	9	31/05/2012 16:07	TR	19/07/2012 12:07	TR	
	Impact on care	16	92	31/05/2012 13:20	TR	19/07/2012 13:30	TR	
	Issues of communication	11	23	31/05/2012 14:18	TR	19/07/2012 14:44	TR	
	Judgements	15	39	31/05/2012 12:33	TR	19/07/2012 15:19	TR	
	Midwives' anxieties	10	17	01/06/2012 13:39	TR	19/07/2012 15:51	TR	
	Midwives' concern & care for the women	6	12	01/06/2012 14:56	TR	19/07/2012 16:27	TR	
	Midwives' frustrations	13	28	01/06/2012 15:42	TR	19/07/2012 16:48	TR	
	Negative impact on resources	12	22	31/05/2012 16:34	TR	19/07/2012 17:14	TR	
	Promoting normality against the odds	5	6	31/05/2012 17:15	TR	19/07/2012 17:41	TR	
	Raised BMIs are the norm	14	27	31/05/2012 18:30	TR	19/07/2012 18:10	TR	
	Seeing beyond obesity	7	10	31/05/2012 18:59	TR	19/07/2012 18:49	TR	

	Name	Sources	References	Created On	Created By	Modified On	Modified By	
	Size of midwife	10	14	31/05/2012 19:16	TR	19/07/2012 19:13	TR	
	Strategies for communication	8	15	31/05/2012 19:46	TR	19/07/2012 19:49	TR	
	Women are offended by care & communication	5	5	01/06/2012 09:25	TR	19/07/2012 19:58	TR	
	Women unaware of the implications of their size	7	9	31/05/2012 20:27	TR	19/07/2012 20:25	TR	

Appendix 21: Part 2 NVivo Data Management Example

	Name	Sources	References	Created On	Created By	Modified On	Modified By	
	Caring	6	6	09/12/2013 08.06	TR	20/12/13 08.01	TR	
	Challenges of delivering care	8	43	09/12/2013 08.25	TR	20/12/13 08.15	TR	
	Educationally feels prepared to care for this client group	7	17	09/12/2013 08.38	TR	20/12/13 08.22	TR	
	Judgements	5	21	09/12/2013 09.21	TR	20/12/13 08.29	TR	
	Medicalised and high risk	6	25	09/12/2013 10.00	TR	20/12/13 08.38	TR	
	Non-judgemental aims not to discriminate treats everyone the same	6	25	09/12/2013 10.40	TR	20/12/13 08.58	TR	
	Practice experience	6	15	09/12/2013 10.58	TR	20/12/13 09.19	TR	
	Promotes normality	6	12	09/12/2013 11.23	TR	20/12/13 09.45	TR	
	Raised BMI are the norm	4	6	09/12/2013 11.50	TR	20/12/13 10.15	TR	
	Sensitive communication	7	19	09/12/2013 12.19	TR	20/12/13 10.28	TR	
	Size of student midwife and midwife	8	17	09/12/2013 13.41	TR	20/12/13 11.25	TR	
	Size of woman	7	21	09/12/2013 14.04	TR	20/12/13 11.46	TR	
	Students' reluctance to express knowledge	4	9	09/12/2013 14.32	TR	20/12/13 12.15	TR	
	Students do not have 'sinking feeling'	8	8	09/12/2013 14.59	TR	20/12/13 13.00	TR	
	Students' perception of midwives' communication issues with women	7	44	09/12/2013 15.29	TR	20/12/13 13.16	TR	
	Suggestions for further training for midwives in caring for women	3	6	09/12/2013 17.00	TR	20/12/13 13.33	TR	
	Suggestions for further training for student midwives in communication	4	7	09/12/2013 17.28	TR	20/12/13 13.49	TR	
	Suggestions for service improvements	5	13	09/12/2013 17.41	TR	20/12/13 14.50	TR	

	Name	Sources	References	Created On	Created By	Modified On	Modified By	
	Truthful communication	4	5	09/12/2013 18.13	TR	20/12/13 15.20	TR	
	Women's awareness/lack of awareness of their size	7	16	09/12/2013 18.53	TR	20/12/13 15.45	TR	

Appendix 22: Costings of the Study

Equipment/Training Required	Cost
Use of computer	Have individual use of University computer in current role.
Stationery	Met by myself with proceeds of co-authored book for parts 1 & 2 of study.
Use of audio-recorder	Have purchased own with proceeds of co-authored book.
Use of NVIVO	To be accessed ‘in house’, already set up on work desktop.
Transcription of audio data to written texts	£432 (costs met by Valedictory Prize, £200 and £232 from proceeds of co-authored book.)
Attendance at research conferences	To be applied for direct to xxxxx. (Once study nears completion will be submitting abstracts to present at said conferences.)